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DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEARS 1988 AND 1989

HEARINGS

BEFORE THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

ONE HUNDREDTH CONGRESS

FIRST SESSION

ON

S. 1174

AUTHORIZING APPROPRIATIONS FOR FISCAL YEARS 1988 AND 1989 FOR MILITARY ACTIVITIES OF THE DEPARTMENT OF DEFENSE, FOR MILITARY CONSTRUCTION, AND FOR DEFENSE ACTIVITIES OF THE DEPARTMENT OF ENERGY, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL YEARS FOR THE ARMED FORCES, AND FOR OTHER PURPOSES

PART 1

U.S. MILITARY POSTURE
BUDGET OVERVIEW

FEBRUARY 3, 4, 5, 17, 19, 1987

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CONTENTS

CHRONOLOGICAL LIST OF WITNESSES

COMPREHENSIVE BUDGET OVERSIGHT RESPONSIBILITIES AND REVIEW

FEBRUARY 3, 1987

Page
Penner, Dr. Rudolph G., Director, Congressional Budget Office 4

MACRO-BUDGET ISSUES

FEBRUARY 4, 1987

Marsh, Hon. John O., Jr., Secretary of the Army 57
Goodrich, Hon. James F., Under Secretary of the Navy 73
Aldridge, Hon. Edward C., Secretary of the Air Force 82

MACRO-BUDGET ISSUES

FEBRUARY 5, 1987

Wickham, Gen. John A., Jr., Chief of Staff, United States Army 131
Kelley, Gen. P.X., Commandant of the Marine Corps 145
Trost, Adm. C.A.H., USN, Chief of Naval Operations 147
Welch, Gen. Larry D., Chief of Staff, U.S. Air Force 151

AUTHORIZATION REQUEST

FEBRUARY 17, 1987

Weinberger, Hon. Caspar W., Secretary of Defense 206
Crowe, Adm. William J., Jr., USN, Chairman of the Joint Chiefs of Staff 259

ASSESSMENT OF DEFENSE BUDGET REQUEST

FEBRUARY 19, 1987

Bowsher, Charles A., Comptroller General of the United States; accompanied by Frank C. Conahan, Assistant Comptroller General 312
Index .... (I)

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEARS 1988 AND 1989

TUESDAY, FEBRUARY 3, 1987

U.S. Senate,
Committee on Armed Services,
Washington, DC.

COMPREHENSIVE BUDGET OVERSIGHT RESPONSIBILITIES AND REVIEW

The committee met in open session pursuant to notice, at 9:45 a.m., Senator Sam Nunn (chairman) presiding.

Present: Senators Nunn, Exon, Levin, Bingaman, Dixon, Glenn, Gore, Wirth, Shelby, Warner, Thurmond, Humphrey, Cohen, Wilson, Gramm, and McCain.

Staff present: Arnold L. Punaro, staff director; Carl M. Smith, staff director for the minority; Romie L. Brownlee, deputy minority staff director; Patrick A. Tucker, minority counsel; John J. Hamre, George K. Johnson, Jr., Ronald P. Kelly, David S. Lyles, Michael J. McCord, Gordon G. Riggle, Ann Elise Sauer, and Patricia L. Watson, professional staff members; Richelle M. Turner, staff assistant.

Also present: Jeffrey B. Subko, assistant to Senator Exon; Gordon Kerr; assistant to Senator Levin; Gregory B. Craig, assistant to Senator Kennedy; Charles C. Smith, assistant to Senator Dixon; Milton D. Beach, assistant to Senator Glenn; Leon Fuerth, assistant to Senator Gore; Neil Fiske, assistant to Senator Wirth; James M. Bodner, assistant to Senator Cohen; Mark J. Albrecht, assistant to Senator Wilson; and Alan Ptak, assistant to Senator Gramm.

OPENING STATEMENT BY SENATOR SAM NUNN, CHAIRMAN

Chairman Nunn. The committee will come to order.

During the past month, the committee has held numerous hearings on our national security strategy and component military strategy. These hearings have had two basic objectives.

The first is to increase attention to this fundamental aspect of our national defense, which, in my view, has been given far too little attention. The second objective is to provide the committee with a comprehensive context in which to conduct its overall oversight responsibilities and to review the defense authorization request for fiscal years 1988 and 1989.

The committee is now shifting its attention to the budget and fiscal context of the defense authorization request, although I must say that we are not through with our strategy hearings and at some point in the future, probably in the next couple of months, we are going to come back for another round in that regard.

A sound military strategy depends on a sound foundation for our economy. A sound military strategy requires a stable long-term commitment of resources. In my judgment, the fiscal crisis we face, however, undermines our ability to develop a consensus for stable long-term funding to support our defense requirements.

In the coming weeks, the Armed Services Committee will have to recommend to the Senate Budget Committee a spending level for national defense. I believe the President's defense budget request is a reasonable one in terms of the amount of increase over last year.

I am not saying I support all the plans within the budget request, because I certainly do not. There will be many items I disagree on. But if you look at the defense budget alone and do not put it in the overall context of the fiscal picture or the economy, I think a 3-percent growth rate can be absorbed, in an effective and efficient way.

However, the Federal budget proposals are not realistic overall. For example, the President's own budget fails to meet the Gramm-Rudman-Hollings targets except for the current year. The second and third years, by his own figures, and his own documents do not even come close to meeting those targets. And that impacts defense, as we all know, because we have to look beyond 1 year. They meet the 1988 target only by using some one-time asset sales, and even then I think the Congressional Budget Office has already issued a report saying that the President does not meet the $108 billion Gramm-Rudman target.

So all of this coming together undermines our efforts in this committee to secure a stable and a predictable growth rate in the defense budget.

Our hearing today is designed to give us some insights into this overall problem. We are pleased to welcome Dr. Rudolph Penner, Director of the Congressional Budget Office, to testify this morning. I believe this is the first time we have had the Director of the Congressional Budget Office testify before this committee. I know you have done your share of testifying in other forums.

We have asked you to testify about the budget situation facing our Nation, the problems posed by that situation for the defense budget, and the potential impact of continued implementation of Gramm-Rudman-Hollings sequester orders on the defense budget if Congress fails to meet the targets without that kind of sequester.

I understand, Dr. Penner, that you are going to be leaving your position as Director of CBO. Let me take this opportunity to express my appreciation for your outstanding service to Congress and to the Nation, and, in particular, for the ongoing help of the Congressional Budget Office in assisting us in evaluating critical defense issues.

We have called on your office many times and you have always been very responsive. So we are delighted to have you here this morning.

Senator Warner, do you have anything to say?

Senator WARNER. Thank you, Mr. Chairman.

I think it is very wise for the committee to begin its 1988 authorization responsibilities receiving this overview of the budget, and I welcome our witness this morning.

Chairman NUNN. Senator Exon, you are on both committees. If you have anything you would like to say this morning, we would be glad to hear from you before we hear from Dr. Penner.

Senator EXON. Thank you, Mr. Chairman. Just a brief comment or two.

Certainly I think one of the most important witnesses that we are going to have in front of our committee is the man that sits there right now. I am disappointed that Dr. Penner is leaving the Office of Budget, where he has done an outstanding job, and we are going to miss him.

I think the testimony he is going to give us this morning is going to be very enlightening, and hope it will focus the attention on this authorizing committee to the real dilemma that we have.

So I wish you well in the future and I thank you for your excellent efforts in the past. We have worked closely together on many issues.

Just maybe to highlight the problem that I think that we have, and this Senator wrote the Secretary of Defense several months ago. I told him in that letter that I felt that the next President of the United States was going to be in the position of inheriting a fiscally bankrupt national security policy.

And I think that should be a major concern to all of us, and as the authorizing committee I guess we have some responsibility to take the first step. I would simply say that challenge awaits whoever the President is 2 years from now—and of those sitting at this table, only this Senator has removed himself from the presidential race. [Laughter.]

Certainly the other three members here are qualified candidates. I would certainly say that if Senator Warner is President of the United States he will arrive in an aircraft carrier. If Senator Glenn is the next President of the United States, he will arrive at the White House in a rocket. And if Senator Nunn is the next President of the United States, he is going to arrive at the White House in a rambling wreck from Georgia Tech, which I suggest is the situation that we face with regard to the defense budget.

So good luck to all of you, whichever one of you becomes the next President of the United States.

Thank you.

Senator GLENN. Mr. Chairman, I wonder if I might ask our distinguished colleague why he uses the phrase "bankrupt defense policy"?

Senator EXON. Bankrupt fiscal defense policy.

Senator GLENN. If that so-called bankruptcy applies to defense what about the other accounts in the Government? I mean, is there a reason why you single out defense?

Senator EXON. I single out defense simply to focus on the dilemma that I think that we have. We have got so many things coming down the pike simultaneously. We are only moving ahead on what we think is a sound defense policy by clipping here and pinching there, by stringing out every program that comes along.

And I think we have done that to the extent that it is threatening the future national security interest of the United States. That is my position.

Chairman **Nunn**. Senator Dixon has a prepared statement which will be submitted for the hearing record.

[The prepared statement of Senator Dixon follows:]

Prepared Statement by Senator Alan J. Dixon

Mr. Chairman, this morning we will be hearing from Dr. Rudolph G. Penner, Director, Congressional Budget Office.

I understand that Dr. Penner will discuss the overall budget situation facing this country, the problems posed by that situation for the defense budget and the potential impact of continued implementation of Gramm-Rudman-Hollings sequester orders on the defense budget. Dr. Penner's testimony will also serve as additional input to this committee as we prepare a recommendation to the Senate Budget Committee for the upcoming budget resolution.

Thank you, Mr. Chairman.

Chairman **Nunn**. Dr. Penner, you may proceed.

STATEMENT OF DR. RUDOLPH G. PENNER, DIRECTOR, CONGRESSIONAL BUDGET OFFICE

Dr. **Penner**. Thank you, Mr. Chairman, and thank you for your kind words. With your permission, I will just give you a brief summary of my testimony and submit the rest for the record.

Chairman **Nunn**. Well, you are our only witness this morning and we are looking forward to your testimony. So you take whatever time you think is appropriate to present it the way you feel best.

Dr. **Penner**. Thank you.

Mr. Chairman, the Government's current fiscal outlook is much improved from that of 2 years ago, with deficits down and likely to decline further. Nonetheless, Federal deficits are still extremely high by historical standards and may well limit congressional willingness to appropriate dollars for all Federal programs, including defense. As a result, the administration and the Congress will face difficult choices in formulating the defense budget. I do not have a detailed prescription for those choices; they depend on what defense capabilities you judge most critical.

Turning to the budget outlook, under CBO's baseline assumptions—which assume no real growth in either defense or nondefense discretionary programs—CBO projects that the Federal deficit will decline from its record high of $221 billion in 1986 to $174 billion in 1987, $169 billion in 1988, and $85 billion in 1992. In relation to the gross national product [GNP], the deficit is projected to decline from 5.3 percent of GNP in 1986 to 1.4 percent by 1992.

Chairman **Nunn**. May I ask a question there? I think you have already stated, but I want to make sure. Now, that is based on a flat, zero growth rate in defense from now until 1992?

Dr. **Penner**. That is absolutely correct.

Chairman **Nunn**. That is what a lot of people do not understand about the projections. People are talking about rosey forecasts, but from our committee point of view that is based on no growth in defense for the next 5 years.

Dr. **Penner**. That is absolutely right, and the projections are not meant to be a forecast at all. They are really just meant to be a starting place for the debate. And CBO does do not even choose the baseline that Congress will use. That decision is up to the budget committees which will define the kind of baseline that they want.

Chairman NUNN. But you base that baseline on last year's budget resolution and the indications coming from that over the 3 year period, is that right?

Dr. PENNER. Not on the resolution itself, sir, although it would make very little difference, because the budget resolution——

Chairman NUNN. The appropriation level.

Dr. PENNER [continuing]. Was essentially zero growth. But we base it on the budget authority level and keep that budget authority level constant in real terms.

Beyond that, of course, these budget projections are very much affected by the economic outlook and they are contingent on CBO's forecast of a moderate pickup in economic growth from its subdued pace in 1986 and a modest decline in both short-term and long-term interest rates over the projection period from their average levels in 1986. That would imply a small short-term rise from where we are at right now.

The budgetary outlook and the economic assumptions underlying the forecast are presented in Table 1 of my complete testimony.

I think there is a broad consensus that the kind of deficits implied by this baseline, though improved relative to those of a couple of years ago, are still far too high. There is, moreover, no margin of error in these projections, no provision for the possibility that our economic forecast will be too optimistic or that some urgent national need might require spending not now accounted for. Most obviously, an international crisis or something would push the defense budget into perhaps significant real growth.

I think because no one is satisfied with the kind of deficit projections implied by current policy, it resulted in the passage of the Balanced Budget Act. As you know, that act sets targets for deficits—the target for 1988 is $108 billion—and specifies that certain types of spending cuts are to be made if the targets are not met. Under current law, these cuts go into effect only if the Congress and the President approve them.

The report that begins the process is not due to the Congress until August 20th. Deficit estimates used in that report will be an average of CBO and OMB estimates. It is interesting, however, to reflect on what might happen if CBO's current economics assumptions were adopted at that time and if the Congress tools no action in the interim to alter spending or taxes. Under the rules established by the Balanced Budget Act, the deficit is defined a little differently from CBO's baseline, and that definition of the deficit would lead to an estimate of $158 billion. To reach the target deficit of $108 billion, a reduction of $50 billion would be required. If the Congress chose to make the cut using an across-the-board sequestration, it could mean a reduction in nondefense budgetary resources subject to cuts under this approach of 20 percent, and a cut of 14 percent below 1987 levels in defense budgetary resources.

That reduction would leave national defense budget authority for 1988 at about $250 billion, roughly $60 billion below the level proposed by the administration. The cuts would have to be equal in percentage terms for accounts as diverse as Army active-duty enlisted personnel and funding for long-lead items like the F-18 aircraft. Thus, a substantial sequestration could create major disruptions, especially for military personnel accounts, where dismissals of large numbers of personnel would be needed to satisfy the law.

I want to emphasize again that this scenario would only unfold if the Congress did not make changes in taxes or spending that would reduce the deficit, and only if, under the Supreme Court decision, the Congress and the President both approved the triggering of the Balanced Budget Act. Moreover, the specific numbers I use can only be regarded as illustrative, because they are very sensitive to changes in the economy between now and next August.

It is beyond the scope of my testimony to propose very specific reductions in the defense budget that might serve as alternatives to sequestration. Most reductions to the defense budget involve increasing risks. Unless one can buy the same weapons or the same personnel for fewer dollars, then reductions mean less ability to deter or, if necessary, prevail in a future conflict.

That results in more risk that the United States would fail to meet its defense needs. No conceivable budget can eliminate risks altogether, and it is very difficult to judge how much risk is appropriate in light of concerns about other problems, such as the deficit.

I will not attempt to make those judgments. Rather, let me turn to some pressures that I see facing the defense budget and alternative ways that the administration and the Congress might respond.

Operating and Support [O&S] funds today make up roughly 55 percent of the defense budget. These costs include moneys for the pay and benefits of most personnel, both military and civilian, plus the costs of day-to-day operations.

There is considerable evidence that O&S costs bear a relatively constant relationship to the value of the stock of weapons. This causes a problem, because that stock will be increasing because of goods ordered in the past—the phenomenon that Senator Exon referred to in his opening remarks. This growth suggests that rising O&S costs may have to be accommodated by cuts in future investment. My detailed testimony looks at the increased costs imposed by lower investment through production stretchouts. It suggests that higher production rates in many cases would be more efficient. There are ways that those higher production rates might be maintained under current circumstances. We see some advantages to multi-year and milestone budgeting. New weapons starts could also be delayed so that, once started, the weapons could be produced at a more economic rate.

In conclusion, Mr. Chairman——

Chairman NUNN. May I emphasize that point, if I could, by a question. You are saying that if we have got a choice just in terms of efficiency between cutting the number of units of production on a system already in production or delaying the start of a system, keeping it in research stage and not going into production, that in terms of efficiency we are much better off having more units produced on systems being produced rather than new starts?

Is that what you are saying?

Dr. PENNER. In terms of unit costs. I'd like to make a subtle distinction between unit costs and efficiency. Obviously, delaying the start of a weapons system deprives the services of its use for a certain period of time, which could reduce capability in ways that would vary from system to system. That's a hard issue to judge, obviously. But very certainly, if you only look at unit costs, then the stretchouts are typically very inefficient.

In Table 2 of my testimony, we look at four particular kinds of aircraft. Starting with the administration's budget, we examine the cost saving that might be obtained through a more efficient production rate. You can see that, in those four cases at least, we are talking significant amounts of dollars.

In conclusion, overall deficit trends have improved in recent years, but deficits are still substantial and may well lead to continued congressional efforts to hold down the size of the defense budget. Important as they are, the types of investment efficiencies discussed in my testimony cannot offset the absence of growth in the defense budget for substantial periods.

If Congress chooses to limit the defense budget to little or no growth for a number of years as part of an overall approach to reducing deficits, then relative to administration plans, there will be fewer weapons, fewer people, and other reductions.

That inevitably implies more risk that the United States will not fulfill all of its current defensive commitments. Weighing the importance of those added risks against the benefits of reduced spending is certainly one of the most difficult choices that confront this committee and the Congress as you debate defense budgets for the next few years.

I would be pleased to take your questions, Mr. Chairman.

[The prepared statement of Dr. Penner follows:]

Prepared Statement of Dr. Rudolph G. Penner, Director, Congressional Budget Office

Mr. Chairman, I appreciate the opportunity to testify before this Committee. My remarks today will deal with the federal budget and will focus particularly on the defense budget.

The government's current fiscal outlook is much improved from that of two years ago, with deficits down and likely to decline further. Nonetheless, federal deficits are still extremely high by historical standards and may well limit Congressional willingness to appropriate dollars for all federal programs, including defense. As a result, the Administration and the Congress will face difficult choices in formulating the defense budget.

I do not have a detailed prescription for those choices; they depend on what defense capabilities you judge most critical. I can tell you that some growth in operating and support costs is likely as new weapons enter the inventory. If there is little or no growth in total budgets, that will create pressure to limit or reduce dollars available for investment. Some ways of responding to that pressure are clearly less efficient than others—for example, stretching out production of weapons or across-the-board cuts such as those mandated by the Balanced Budget and Emergency Deficit Control Act of 1985.

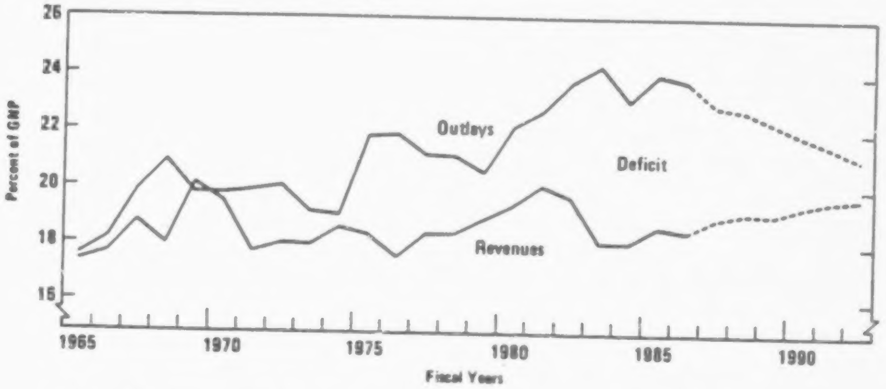
BUDGET TRENDS, 1978–87

Over the last 10 years, the federal budget has undergone changes with important implications for the deficit. As a percent of the gross national product (GNP), outlays have grown from 21.1 percent in 1978 ($459 billion) to a peak level of 24.3 percent in 1983 but will decline to an estimated level of 22.9 percent ($1,008 billion) this fiscal year (see Figure 1). Total federal revenues have also grown as a percent of GNP, peaking in 1981 but still remaining at a higher level in 1987 than in 1978. These shifts in outlays and revenues have produced dramatic changes in the federal deficit. The deficit stood at 2.7 percent of GNP ($59 billion) in 1978. As a percent of

GNP, it peaked at 6.3 percent in 1983 but should decline to about 4 percent of GNP ($174 billion) in 1987.

FIGURE 1.

Baseline Revenues and Outlays

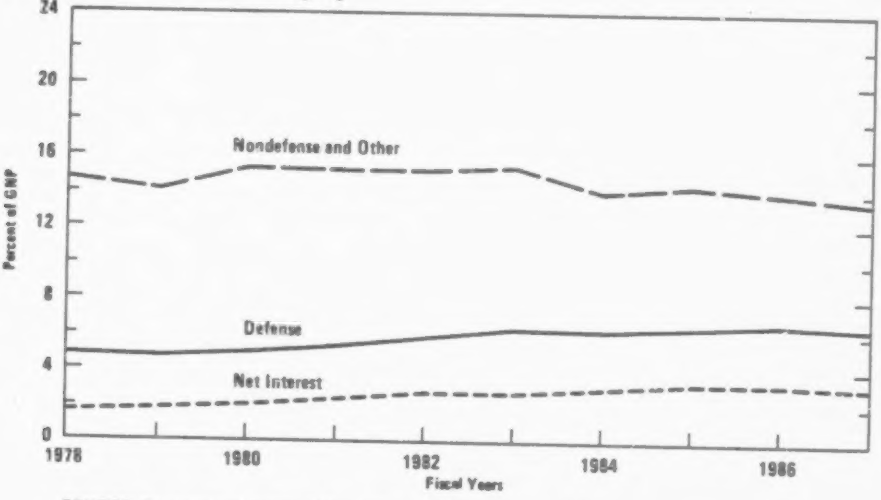


SOURCES: Congressional Budget Office; Office of Management and Budget; Department of Commerce, Bureau of Economic Analysis.

From a Vietnam peak of 9.6 percent of GNP in fiscal year 1968, national defense outlays fell rapidly to a low of 4.7 percent of GNP by1979. Since that time they have been rising rapidly, both absolutely and as a share of GNP (see Figure 2). By 1987, these outlays had risen to 6.4 percent of GNP ($280 billion). Similarly, budget authority rose from $117 billion in 1978 to $290 billion in 1987—an increase, after adjustment for inflation, of about 48 percent.

Figure 2.

Federal Outlays by Category



SOURCE: Congressional Budget Office; Office of Management and Budget.

Over the entire period, added defense dollars have produced changes, and continue to produce them, in U.S. defense forces. Except in the Navy, there has not been much increase in the numbers of those forces, probably reflecting this Administration's emphasis on modernization rather than force expanision. All the services have modernized their weapons aggressively. Often the services have bought more expensive and presumably more capable models of new weapons, which has generally meant proportionally larger increases in dollars than in numbers of weapons.

The Administration has given highest priority to improving personnel readiness. Pay increases, added recruiting resources, changes in the economy, and shifts in the national mood have combined to improve markedly the educational levels and test scores of new military recruits and the experience level of career personnel in all the services. As a result, U.S. forces are more combat ready today then they were in the late 1970s.

Important as these improvements are, they are clearly less than the Administration planned. The defense budget for 1987 is about $80 billion lower (in constant 1987 dollars) than the Administration projected in its long-range plan of February 1982. Many goals have been dropped or postponed—for example, most of the planned increases in Air Force tactical fighter wings, the increased numbers of the most modern ships in the Navy, and growth in numbers of active-duty personnel in the Army. Unfortunately, it is difficult to relate these reduced goals to changes in the ability of the United States to fulfill its defense commitments. Because of recent growth in the defense budget, U.S. military effectiveness must have improved in some absolute sense. But, of course, it is necessary to measure our strength relative to that of potential adversaries and that is much more difficult conceptually.

BUDGET OUTLOOK

The debate over any further increases in defense spending will be influenced by the overall budget outlook. Each year the Congressional Budget Office (CBO) prepares a "baseline" estimate of budget trends. The baseline assumes no changes in current tax or entitlement laws and an adjustment for inflation—but no real growth—in all federal outlays subject to discretionary appropriation. Specifically, the baseline assumes no real growth in defense budget authority. Baseline spending for entitlements is allowed to grow only enough to reflect inflation and demographic changes, such as more people on the social security rolls. The baseline estimates also reflect CBO's latest assumptions about the further performance of the economy. These baseline estimates are not intended as a guide in what the Congress should do about the budget or as a forecast of what it will do. Rather they are only a useful starting point for the budget debate.

Under these baseline assumptions, CBO projects that the federal deficit will decline from its record high of $221 billion in 1986 to $174 billion in 1987, $169 billion in 1988, and $85 billion in 1992. In relation to GNP, the deficit is projected to decline from 5.3 percent of GNP in 1986 to 3.6 percent in 1988 and 1.4 percent in 1992.

These budget projections are contingent on CBO's forecast of a moderate pickup in economic growth from its subdued pace in 1986, and a modest decline in both short-term and long-term interest rates over the projection period from their average levels in 1986. The budgetary outlook and the economic assumptions underlying the forecast are presented in Table 1.

TABLE 1.—BASELINE BUDGET PROJECTIONS, DEFICIT TARGETS, AND UNDERLYING ECONOMIC ASSUMPTIONS

	Actual 1986[1]	1987	1988	1989	1990	1991	1992
Budget projections (by fiscal year, in billions of dollars): [2]							
Baseline estimates:							
Revenues	769	834	900	962	1,050	1,138	1,220
Outlays	990	1,008	1,069	1,124	1,184	1,247	1,305
Deficit	221	174	169	162	134	109	85
Deficit targets	172	144	108	72	36	0	NA
Baseline less targets	49	30	61	90	98	109	NA
Economic assumptions (by calendar year):							
Nominal GNP (percent change)	5.4	6.0	6.9	7.2	7.4	7.0	6.8
Real GNP (percent change)	2.6	2.8	3.0	3.0	3.1	2.7	2.5
CPI–W (percent change)	1.6	3.5	4.3	4.3	4.3	4.3	4.3
Civian unemployment rate (percent)	7.0	6.6	6.5	6.3	6.1	6.0	6.0
3-month treasury bill rate (percent)	6.0	5.6	5.7	5.6	5.5	5.3	5.2

[1] 1986 data for nominal and real GNP and the CPI–W are CBO estimates. The estimates do not reflect the actual data for the fourth quarter of 1986 that were released on January 22, 1987.

[2] The baseline estimates and deficit targets include Social Security, which is off-budget.

Note. NA=not applicable.

Source: Congressional Budget Office.

As Table 1 shows, the baseline deficit declines sharply in 1987, with a further moderate reduction in 1988. About half of the expected decline in the 1987 deficit results from one-time factors, including an increase in revenues under the Tax Reform Act of 1986, asset sales, and shifts of outlays into adjacent years. After 1987, revenues under current laws are projected to grow at an annual rate of nearly 8 percent—slightly faster than GNP—while baseline outlays grow only 5 percent per year, which is substantially below the 10 percent annual growth rate experienced earlier in the 1980s and less than the projected growth in the economy.

Progress toward deficit reduction has been substantial during the last two years. CBO baseline forecasts of two years ago showed deficits remaining above $200 billion and 5 percent of GNP. At that time, Congressional budget resolutions assumed substantial continued growth in defense spending, and CBO's baseline paralleled those assumptions. Today, the budget resolution call for little real growth in defense. Much of the change in baseline deficit forecasts reflects this change in assumptions about future defense spending.

Despite important progress on deficit reduction, the current level continues to be a concern. Deficit projections are well above the targets set in the Balanced Budget Act; in fact, baseline projections exceed targets in the act by more than $60 billion in 1988 and by an average of about $100 billion between 1989 and 1992. Moreover, deficits could be larger than CBO's baseline estimates if the Congress approves the Administration's defense plans—which call for real growth in defense—without offsetting reductions in other spending areas or increases in taxes.

Perhaps most importantly, CBO's estimate of declining deficits depends on continued growth in the economy. CBO does not foresee a recession in the next year or so. Beyond 1988, however, CBO's economic numbers are not a forecast but rather projections that assume continued growth in the economy based on historical experience. CBO does not rule out the possibility of mild recessions during the period, but also would expect periods of above average growth that would offset the impact of recessions on budget totals. At some point, however, there could well be a deep recession, and that would make deficits much larger than in the baseline. For illustration, CBO developed an alternative baseline estimate assuming a recession, beginning in 1987, that is similar in depth and duration to the recession of 1973 to 1975; the assumed recovery is average by postwar standards. Under these assumptions, the deficit in 1988 would rise to $266 billion, or about 6 percent of GNP, and never fall below $200 billion through 1992. Clearly, federal fiscal policies have not built up a cushion against the adverse effects of a serious recession.

EFFECTS OF THE BALANCED BUDGET ACT

The Balanced Budget Act, which reflects concern over these deficits, could have an imporant effect on the defense budget. As you know, the Balanced Budget Act sets targets for deficits—the target for 1988 is $108 billion—and specifies that certain types of spending cuts are to be made if the targets are not met. Under current law, these cuts go into effect only if the Congress and the President approve them.

The report that begins the process is not due to the Congress until August 20. The deficit estimates used in that report will be an average of individual estimates made by CBO and the Office of Management and Budget. It is possible to estimate what would happen, however, should CBO's current economic assumptions be adopted at that time and should the Congress take no action in the interim to alter spending or taxes. Under rules established in the Balanced Budget Act, the deficit in 1988 would total $158 billion. (These rules, and hence the deficit, differ in several ways from those CBO uses in the baseline estimates I just discussed.) To reach the target deficit of $108 billion, a reduction of $50 billion would be required. If the Congress chose to make the cut using an across-the-board sequestration, it could mean a reduction in nondefense budgetary resources subject to cuts under this approach of 20 percent and a cut of 14 percent below 1987 levels in defense budgetary resources (defined as future defense budget authority plus unobligated balances from past years). That reduction would leave national defense budget authority for 1988 at about $250 billion, roughly $60 billion below the level proposed by the Administration.

Not only would the defense cuts be large under a sequestration, they would have to be achieved in a very mechanical way. Reductions must be equal in percentage terms for each "program, project, and activity" or PPA. If the 1986 sequestration is a guide, there would be thousands of PPAs for defense. Thus, for example, cuts would have to be equal in percentage terms for accounts as diverse as Army active-duty enlisted personnel and funding for long-lead items for the F/A-18 aircraft. Nor does current law provide for exemptions such as those the President invoked in 1986. Thus, a substantial sequestration could create major disruptions—especially for military personnel accounts, where dismissals of large numbers of personnel would be needed to satisfy the law.

I want to emphasize again that this scenario would unfold only if the Congress did not make changes in taxes or spending that would reduce the deficit, and only if the Congress and the President both approved a triggering of the Balanced Budget Act. The specific numbers are also highly sensitive to changes in economic assumptions.

THE ADMINISTRATION'S DEFENSE BUDGET REQUEST

Let me turn to the Administration's proposals for the defense budget. For the national defense function, the Administration proposes budget authority of $312 billion in 1988, rising to $397 billion by 1992. After adustment for inflation, growth above the 1987 appropriated level would average about 3 percent a year under the Administration's economic assumptions and about 2 percent a year under CBO assumptions. Outlays would grow from $298 billion in 1988 to $371 billion by 1992.

Despite substantial real growth, the Administration's request may not provide enough funds to meet all the goals established by the services. CBO recently estimated that reaching the Army's goals would require real increases in the Army's budget averaging about 6 percent a year through 1991. A 1985 CBO report estimated that meeting the Navy's goals as of January 1985, including the goal of 600 ships and 15 deployable aircraft carriers, would require real increases in the Navy's budget averaging between 3 percent and 5 percent a year through the mid-1990s.

The appropriateness of these service goals must be judged, however, in light of defense needs as well as the overall budget outlook that I discussed earlier. It seems clear that, because of deficit concerns, the congress will consider reducing the 1988 defense request, as it has all recent requests.

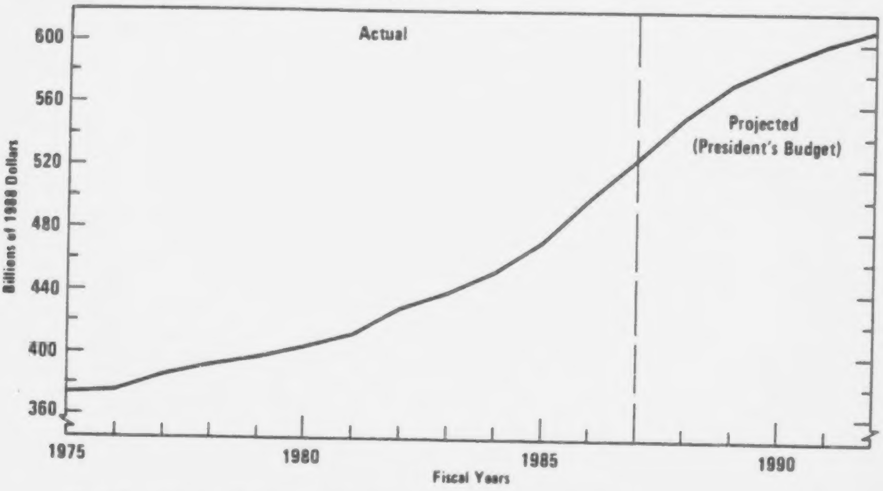
It is beyond the scope of my testimony to propose specific reductions in the defense budget. Most reductions to defense budgets involve increasing risks. Unless one can buy the same weapons or the same personnel for fewer dollars, the reductions mean less ability to deter or, it necessary, prevail in a future confict; that results in more risk that the United States would fail to meet its defense needs. No conceivable budget can eliminate risks altogether, and it is very difficult to judge how much risk is appropriate in light of concerns about other problems such as the deficit. I will not attempt to make those judgments. Rather let me turn to some pressures that I see facing the Defense budget and alternative ways that the Administration and the Congress might respond.

TRENDS IN OPERATING AND SUPPORT COSTS

Operating and support (O&S) costs today make up roughly 55 percent of the defense budget. These costs include monies for the pay and benefits of most personnel, both military and civilian, plus costs of day-to-day operations. They are ofter referred to as readiness-related costs. In its latest budget plan, the Administration requested real growth in O&S costs averaging about 3 percent a year through 1992.

Preliminary results of a CBO analysis for the House Budget Committee suggest that some growth may be necessary. Between 1975 and 1987, there has been a relatively constant relationship between O&S costs and the dollar value of the stock of major Department of Defense (DOD) weapons (defined as ships, aircraft, and major Army fighting vehicles). The ratio between (O&S) costs and the real value of those weapons dipped as low as 0.31 in 1979, rose to 0.34 in 1985, and again stands at 0.31 in 1987. The relationship has remained roughly constant despite a 40 percent real increase in the value of the stock of major weapons during this period (see Figure 3). The relationship suggests that numbers and complexity of weapons, as measured by dollar value of the stock, influences the cost of operations.

Figure 3.
Dollar Value of Major DOD Weapons



SOURCE: Congressional Budget Office estimates based on Department of Defense data.

If this historical relationship prevails in the future, the O&S costs would have to increase at roughly the rate proposed by the Administration because the value of the stock of major weapons increases at a real rate averaging about 3 percent a year over the next five years (see Figure 3). It is important to note that, for the next several years, needed growth would not be much affected by procurement decisions now before you. The lag between purchase and delivery of major weapons means that decisions on the budget for 1988 will not have large effects on the value of weapons in the DOD inventory until 1990. In 1990 and beyond, projections do depend on future choices. Figure 3 assumes enactment of the Administration's proposed procurements of major weapons.

While this weapons-value approach suggests increases, another measure—the cost-factors approach—suggests that O&S needs could be much more modest. This measure builds up O&S costs assuming that major force units (such as aircraft squadrons and Army divisions) cost the same to operate in the future as they did in a recent budget year; adjustments are made only for changes in numbers of units and inflation. Analysis by this measure suggests that real growth in O&S costs would have to average only about 0.5 percent a year over the next five years to keep up with force growth. Estimates using this cost-factors approach are much lower than those under the weapons-value approach for several reasons. The cost-factors approach assumes that portions of O&S costs not directly related to major force units remain constant in real terms (for example, portions of the costs of facilities and medical care). The method also allows growth only when major force units increase in numbers, and so it does not always capture changes in O&S caused by purchases of new types of weapons.

I want to emphasize the limitations of both these approaches as predictors of overall operating and support costs. Neither method relates O&S dollars directly to military readiness. The weapons-value approach ignores engineering changes aimed at holding down operating costs, while the cost-factors approach may understate some costs associated with shifts to more complex weapons. Perhaps most importantly, both methods fail to account explicitly for efficiencies in methods of operating and supporting forces. O&S costs are highly diverse; efficiences regarding personnel support, maintenance policies, administrative staffing, and many other factors could hold down the increases suggested above, particularly those suggested by the weapons-value approach.

Given these limitations, the results presented here serve best as rough guides to the range of increases needed in O&S costs. Both do suggest that—in the absence of efficiencies—some growth in O&S costs will be needed.

ACCOMMODATING REDUCTIONS IN INVESTMENT

If O&S costs grow, but the overall DOD budget does not, that clearly means reductions in the remainder of the budget, which pays for investment. Production stretchouts are a common but inefficient way to redue investment costs. Avoiding stretchouts, and using more efficient procurement techniques, such as multiyear contracting, requires up-front funds that will probably have to be obtained by canceling or delaying production of selected weapons.

Production stretchouts

The latest Administration budget continues the trend toward stretchouts in production of weapons. Relative to the plan for 1988 published last year, this year's plan shows that 10 of the 20 largest DOD weapons systems are being bought at lower rates. Moreover, of the 25 weapons systems for which CBO has data, four are being bought below what DOD has reported as the minimum sustaining production rate (defined as production for five days each week, one shift per day).

For many systems, production slowdowns add to costs as fixed overhead is spread over fewer systems and economies of large-scale production go unrealized. At this Committee's request, CBO is currently assessing the effects of such stretchouts on weapons costs. CBO's preliminary results are based on budget data and suggest that effects vary widely, with costs of some systems appearing to be relatively insensitive to production rates, while others show significant savings when produced at higher rates.

Among those that do show savings are four aircraft systems listed in Table 2. Estimates in Table 2 assume that the same total number of aircraft are bought at two different production rates: the planned rates of procurement in the Administration's 1987 budget plan plus rates that range from about 30 percent greater to 80 percent greater and average about 60 percent highter. (To be conservative, the higher rates are always held well below maximum production rates) At higher rates, savings range from 4.9 percent to 12.3 percent of the costs to complete the program, expressed in constant 1987 dollars, and total $1.7 billion just for these four systems. Moreover, purchases are completed one to four years earlier than under the Administration's plans, which means that the aircraft are in the field more quickly.

TABLE 2.—SAVINGS FROM HIGHER PRODUCTION RATES FOR SELECTED SYSTEMS

System	Years to complete program		Average procurement rate		Cost to complete program (in millions of 1987 dollars)		Percent savings
	Administration's 1987 plan[1]	Higher rates	Administration's 1987 plan	Higher rates	Administration's 1987 plan	Higher rates	
CH/MH-53 helicopter	4	3	14	18	1,000	900	11.3
EA-6B aircraft	5	3	12	20	2,400	2,100	12.3
F-14D aircraft	12	8	31	56	13,100	12,400	5.4
F-15E aircraft	8	5	48	84	12,600	12,000	4.9

[1] Cost and quantities are based on the Administration's 1987 program, as presented in the December 1985 Selected Acquisition Reports. Five-year details on the 1988 program are not yet available. Results relative to the 1988 program are likely to be more dramatic since rates of production in the 1988 plan are often lower than the 1987 version in the years for which details are available.

Source: Congressional Budget Office.

CBO's results may understate the true savings from higher production rates, particularly for systems that appear insensitive to rate changes. Our preliminary results extrapolate from budget data to estimate savings. But budget data usually do not include costs associated with higher production rates, which makes extrapolations less reliable. The extrapolations may also be confounded by the costs of system modifications, which could obscure the effects of higher rates. To provide alternative cost data, CBO has also interviewed contractors. They suggest that savings of 10 percent or more of program costs are possible for many systems if production rates are doubled. We are continuing our analyses and will report on more complete results in coming weeks.

Multiyear contracting/milestone budgeting

One way to help ensure rates of production on selected systems is to expand the use of either multiyear contracting or the milestone budgeting approach that this Committee proposed last year. The two-year budgets urged by this Committee could also help ensure higher production rates. Such multiyear techniques commit the government to buying weapons for more than one year.

CBO's analysis suggests that multiyear contracting has produced substantial savings, for several reasons. First, it reduces the chance that production will be stretched out. Second, under multiyear contracting, materials and components can be purchased in more economically efficient quantities. Analysis of the 40 multiyear contracts approved from 1982 to 1986 suggests that, based on DOD data, costs averaged about 12 percent less than would have been the case had the same numbers of items been purchased under annual contracts. Twelve percent savings could not be achieved in all of the procurement budget since the 40 contracts were selected as ideal candidates for multiyear contracting. Nonetheless, the fraction of the procurement budget under multiyear contracts has declined since 1986, which suggests that there is potential for further savings.

Canceling or delaying production

Realizing the long-term benefits of rapid production and multiyear contracts requires up-front budget authority. In a period of limited budgets, how can those funds be found? One approach would be to cancel selected systems of lower priority. This has happened only occasionally, especially in the case of large programs. Large systems develop an industrial as well as a military constituency that makes it hard to cancel them in the absence of severe problems in their performance. Moreover, large systems often represent the key weapons in an important area of warfare; thus, cancellation greatly reduces capability.

A more practical approach might be to delay the initial production of selected systems. In this year's budget, there are 29 major weapon systems with initial procurement or research funds scheduled for 1988 or 1989. If all these systems were delayed two years, for example, savings might amount to $8.4 billion in 1988 and over $38 billion in the next five years. Even if only some of these systems were delayed, savings would be enough to raise production rates of selected existing systems to more economic levels and thus complete production more quickly. More rapid production would also lower procurement costs for these existing systems.

Delaying the new systems would not be without its own inefficiencies. For example, delayed production would mean that engineering teams would have to be kept together longer, thus adding to the costs of new systems. Old systems with higher operating costs might also have to be kept in service. Ideally, careful planning would avoid these costs by developing new systems only when funds are available to buy them rapidly. But even for systems that have already reached advanced stages of development, the costs of delaying production might still be less than the costs of low-rate production.

CONCLUSION

Overall deficit trends have improved in recent years, but deficits are still substantial and may well lead to continued Congressional efforts to hold down the size of the defense budget. The Congress should realize, however, that—absent efficiencies—there is likely to be some increase in needs for operating and support funds as the result of past procurement programs. Aggregate defense budgetary constraints thus mean limiting or reducing investment, including procurement.

CBO's analysis suggests that this pressure could be accommodated most efficiently by avoiding production stretchouts and perhaps by increased use of multiyear contracting or milestone budgeting. The up-front funds for these initiatives would probably have to be achieved through the cancellation or delay of selected weapon systems.

Important as they are, however, more efficient production rates and similar approaches cannot offset the absence of growth in the defense budget for substantial periods. If the Congress chooses to limit the defense budget to little or no growth for a number of years as part of an overall approach to reducing deficits, then—relative to Administration plans—there will be fewer weapons, fewer people, or other reductions. That inevitably implies more risk that the United States will not fulfill all its current defense commitments. Weighing the importance of those added risks against the benefits of reduced spending is certainly one of the most difficult choices that confronts this committee and the Congress as you debate defense budgets for the next few years.

Chairman NUNN. Dr. Penner, we have this year a real challenge in many respects. But one of the things that we have got to tackle is the 2-year budget, and of course that came from this committee in terms of asking the Defense Department for a 2-year budget. They have submitted a 2-year budget.

The problem is that the President's overall second budget year does not meet the Gramm-Rudman targets. The question that I have—I think it is $20 billion over in the second year and $22 billion over in the third year. Is that right, according to his figures?

Dr. PENNER. Something like that.

Chairman NUNN. Now, according to your figures, how far over is he the second and third year from the Gramm-Rudman targets?

Dr. PENNER. According to our figures, I noted our baseline deficit for 1988 was $169 billion. Using the same assumptions that led to CBO's baseline, our preliminary estimate of the President's budget would be somewhere between $27 and $32 billion higher than the $108 billion target.

Chairman NUNN. That is, the President's budget is $27 to $30 billion above the $108 billion?

Dr. PENNER. The way we figure it, yes.

Chairman NUNN. That is the 1988, right?

Dr. PENNER. 1988. We just received all of the details of the budget a few days ago, and we have not completed a study of 1989 and 1990 yet.

Chairman NUNN. So you do not know what those numbers are yet?

Dr. PENNER. Not yet. But we will fairly soon.

Chairman NUNN. Well, his own budget figures, though, show him how much over in 1989 and 1990?

Dr. PENNER. I think it was the order of magnitudes that you were talking about.

Chairman NUNN. By $20 or $22 billion?

Dr. PENNER. Something like that, yes.

Chairman NUNN. Would it stand to reason that those numbers are going to go up, since his budget is over yours in 1988?

Dr. PENNER. Yes, I suspect they will, that is right.

Chairman NUNN. My question to you is, how can we rationally approach the 2-year budget when the President's second year is off the Gramm-Rudman targets by $20 billion plus, maybe even twice that much? How can we come up with a 2-year budget on defense?

Dr. PENNER. Well, sir, all of this is a matter of assumptions and forecasts, and they are always very uncertain. I am not saying with 100 percent certainty that we are right and the President is wrong, first of all.

Given that the President himself has an extra margin to make up in 1989 and 1990, it appears that in multi-year planning—depending on what assumptions the budget committees choose to make and all else equal—you would have to consider more stringent options than he considered to make up that difference.

Whether they would be in defense, I can't say. They could be in nondefense areas or could occur on the revenue side. But I think under——

Chairman NUNN. It is already a tough job to do a 2-year budget. But when you get the second year that is completely out of whack with the targets that Congress and the President have subscribed to, it makes our job on the 2-year budget almost impossible.

Dr. PENNER. Well, I think it is very difficult, sir. I would say the same thing about the first year budget. [Laughter.]

Chairman NUNN. I do not disagree with that, either.

Where are the major differences between your projections and the President's? Your $27 billion is a good number, a big number. Where are the differences, major?

Dr. PENNER. I should say, in the usual case that the differences are in economic assumptions, with the administration typically more optimistic than CBO. While it is more optimistic this year, the difference is much less than it has been in some past years. Only about $10 billion of the difference for 1988 is due to economic assumptions.

The remainder of the difference lies in a variety of programs for which CBO estimates higher costs than the administration does. One of the biggest differences is in the Medicare-Medicaid area, in which we have health costs going up much faster than they do. That is a difference of over $5 billion. That is one of the bigger and more worrisome technical differences that we have had with the administration over the years.

In addition, we differ about the cost of agricultural programs and a number of small differences that add up to over the $27 billion that I mentioned at the lower end of the range.

Some of these differences are definitional problems and we may be able to resolve some of them as time goes on. For example, because we have done it for a large number of years, we assume that we will advance agricultural subsidy payments. CBO defines them as part of current policy. The administration may advocate a change in policy on something like that which would be worth a couple of billion dollars. So there are some conceptual as well as estimating differences.

Chairman NUNN. In terms of the support and maintenance of systems, have you looked at the President's budget in the sense of whether there is enough support, operation and maintenance money to pay for the new systems coming on board?

I know you allude to that in your testimony. Have you done any kind of detailed analysis about whether we are funding those new systems sufficient to keep them up?

Dr. PENNER. Because of time lap between goods ordered in the past, and their delivery, this year's procurement decisions will not change near-term spending very much. We estimate that the real value of the defense investment—as it were, the whole capital stock—will go up about 3 percent a year over the next 5 years.

There is a long-time historical relationship—which frankly we have been debating internally—a relationship between O&S expenditures and the value of the capital stock. We think that relationship involves two things.

One, obviously, if you just get more weapons, you need more support, for more tanks say. But this relationship goes beyond that, and says as the tanks get more expensive, they get more expensive to support as well. We suspect that may have something to do with the complexity of the weapons; as they get more complex, they get more expensive to maintain.

In any case, there is a fairly direct historical relationship between the value of the stock and the O&S costs. The administration is asking for about a 3-percent increase in O&S costs as well. So by that historical relationship, that looks about the right amount of money.

If you look at the relationship in different ways, if you just count the weapons, so many tanks, so many ships, and so on, you could get lower increases in O&S costs. But from the point of view of this historical relationship, the administration's defense request looks well-balanced for 1988.

Chairman **Nunn**. For 1988?

Dr. **Penner**. As you go out, there may be more problems. But for 1988 it looks consistent with the historical relationship.

Chairman **Nunn**. Thank you.

Senator Warner, under either the early bird or the seniority system, you're now entitled to recognition.

Senator **Warner**. I just have one question. That is, given the uniqueness of the defense budget, what is a fair ratio, do you think, between BA and outlay?

Dr. **Penner**. Well, sir, that really is dependent on the mix of accounts. The personnel and operation and maintenance costs spend out very quickly, while procurement spends out very slowly.

What we did in our baseline—and frankly, it does cause something of a problem—we assumed that the mix in terms of the accounts would stay at the same level in real terms from 1987 budget authority to 1988. Because of the kind of phenomenon that I mentioned in my testimony, where there will be particular pressures on fast-spending accounts like O&S—the outlay rate could be higher than the CBO projections.

Our own problem is that CBO is not in the business of predicting how to respond to such a situation. But a fair outlay rate, if you can put it that way, really cannot be determined without some sense of the mix of faster and slower spending accounts and that is usually a matter of negotiations among the various committees concerned—the authorizing, appropriations, and budget committees.

CBO projects a 1988 baseline of $302 billion in budget authority accompanied by outlays of $290 billion, with this assumption that the mix remains the same from one year to the other.

Senator **Warner**. Thank you, Mr. Chairman.

Chairman **Nunn**. We have not completed our own internal poll. We have 10 people who have not voted on which rule we are going to use on recognition. I am going to continue to go by seniority until we get all the votes in. Our junior members who have not voted might want to spur up their vote.

Senator Bingaman.

Senator BINGAMAN. Thank you, Mr. Chairman.

Let me just ask, we have had some problems in previous years, and I am sure you followed some of the discussion, where very late in the budget process or late in our authorizing process we were presented by the Defense Department with new assumptions or new calculations as to the rate of inflation or the cost of fuel or something, so that additional amounts could be authorized without exceeding our budget target.

That is my recollection of how this has come up a couple of times. I am just wondering if that is a practice that occurs in other areas. Is it something that we should consider embracing?

It just strikes me that is an unusual process. It causes a lot of controversy around here every year when it occurs. And I would be interested in your thoughts on it.

Dr. PENNER. Well, sir, it is a very, very difficult problem to handle, and it has been particularly serious, I think, in defense over the last number of years. If you go back to the late 1970s and early 1980s, we had a devil of a time forecasting inflation. Now that has become a little easier with inflation stabilized.

Right now, I think one of the biggest uncertainties regarding the defense budget will be the price of oil. In our calculations, CBO assumed a $15 per barrel price of oil through the forecast period. That is a little lower than recent futures market prices would have you believe.

I think it is just a very, very difficult problem to handle, sir. Achieving accurate economic forecasting is one of the problems that bedevils the budget process. It affects entitlements very severely when estimating COLAs and the number of people that show up for unemployment and welfare benefits.

Probably the very worst area, one that makes defense look simple, is agriculture, where costs depend on crop yields and weather around the world, and so on. There are just a lot of uncertainties in this process.

There are different ways of handling them, for example budgeted contingency funds to cope with the inflation problem. You could extend that concept to other factors, like oil prices.

Whether it is worth it or not I think is quite another question. I mean, you can make the process so complicated and still you will not be responding to all surprises. One should always consider living with the process the way it is as one of the options.

Senator BINGAMAN. Is the $15 price of oil that you anticipate also built into the administration's assumptions?

Dr. PENNER. No. I have gone blank right now on what their assumption is, but I think it is a little higher than ours in the short run. I am afraid we do not have that number at hand.

Senator BINGAMAN. Maybe this is also something that you have to get us for the record, but I would be interested in knowing if the price for the year were $20 instead of $15, what kind of a change are we talking about in the defense budget?

The administration, in its budget estimates for fiscal year 1988, assumed prices of $15.76 per barrel of crude oil. CBO assumed

$15.30 per barrel. The refined product consumed by the Department of Defense was priced at $23.94 per barrel under administration estimates and $23.48 per barrel using the CBO estimates.

Dr. PENNER. We are talking a big change. If I remember correctly, for every $5 change in the price of oil, the direct expenditures of the Pentagon on fuel and oil-related products is a billion dollars.

Senator BINGAMAN. That is all that I have right now, Mr. Chairman.

Chairman NUNN. Thank you, Senator Bingaman.

Senator Humphrey.

Senator HUMPHREY. Thank you.

Mr. Penner, your graph on page 2, shows revenues growing through 1993 as a percentage of GNP. What accounts for that? I was under the impression in the tax reform just passed that revenues would remain constant as a percent of GNP. Obviously, I was wrong. Was there a tax increase in the tax reform?

Dr. PENNER. The tax reform bill attempted to remain revenue neutral over the aggregate of a 5-year period, and over the 5 years 1987-1991 approximately did that. May I respond for the record.

[The information follows:]

Because tax reform contained both revenue-raising and revenue-losing provisions, some of which are being phased in gradually, its effects on total revenues is not smooth year-by-year. In 1987, the first year it takes effect, we estimate that tax reform is responsible for a revenue gain of $12 billion. This causes revenues to jump, as a share of GNP, by 0.3 percentage points. From 1988 through 1990, revenue losses from increases in the standard deduction and personal exemption and from reductions in tax rates for both individuals and corporations exceed revenue gains from various loophole-closing provisions. So tax reform slightly decreases the revenue share of GNP in those years. By 1991, reforms that raise revenue have a larger effect than revenue-reducing provisions. In each of the last two years of our forecast, tax reform adds to the revenue share of GNP by about 0.1 percentage points.

Additionally, legislation other than tax reform, passed at the end of the last session of Congress adds roughly 0.1 to the revenue-to-GNP ratio each year.

Senator HUMPHREY. It sounds like you are using dynamic forecasting. Are you? Are you using a dynamic analysis? Are you projecting increased revenues because of stimulated incentives?

Dr. PENNER. Our forecast attempts to take account of the economic effects of the tax bill. It is a major question as to whether we have done that right. This bill is probably the most complex undertaking in public policy since World War II.

It is really difficult to sort out and, frankly, when we tried to sort it out and put in all the ups and downs, we came out about even. But I think this new legislation is one of the many reasons that our forecast is uncertain, and it is one of the important reasons that there is risk in this forecast.

Senator HUMPHREY. Well, you are showing from 1986 an increase in revenue as a percent of GNP from about 18.1 or 2 to 19.7 or 8. That is a pretty big jump in the increase in percentage of GNP represented by revenues. That is all from bracket creep?

Dr. PENNER. No, sir, it is not all from bracket creep.

Senator HUMPHREY. Well, I did not really mean to make a big issue of this. But I was surprised to see that. Perhaps you could have your staff send me a letter explaining what accounts for that.

Dr. PENNER. I can give you the individual numbers for the record.

Senator **Humphrey**. OK. Let us change subjects. Would you have your staff send me a letter explaining that in some detail?

Dr. **Penner**. Yes.

[The information follows:]

At the close of fiscal year 1986, revenues reached 18.5 percent of GNP. We project that by the end of the current fiscal year they will have grown to 19.0 percent of GNP. Legislation, including tax reform, at the close of the last session accounts for about three-quarters of this increase. The remainder is attributable to a variety of factors, primarily strong growth in taxable incomes.

By 1992, revenues are estimated to be 19.8 percent of GNP, 1.3 percentage points higher than in 1986. Economic factors are primarily responsible, boosting income and payroll taxes by slightly more than the total increase. As GNP rises in our forecast, the taxable fraction of it—those incomes that form the tax bases of the personal and corporate income and payroll taxes—rises even faster. So that by 1992, a greater portion of the aggregate income in the economy is generating tax revenue. Because CBO projects fairly strong real economic growth, real personal incomes are rising over the period, as well. Although the new personal income tax system will be indexed, albeit froma 2-year pause, indexation only accounts for inflation-driven "bracket creep". While the new tax system is less progressive than the old, it still will generate higher taxes as real incomes increase. That is something for which we have never indexed. Increases in real incomes move taxpayers through the tax brackets each year, adding 0.5 percent to the revenue-to-GNP ratio by 1991 and 1992.

Another factor pushing up out-year revenues compared to 1986 is the Social Security tax rate increases scheduled for 1988 and 1990. And, as I mentioned earlier, tax reform and other recent legislation have a minor effect too.

This growth is partially offset by slower-than-GNP growth in other, smaller tax sources and by downward adjustments in some payroll tax rates, as trust fund balances stabilize and grow.

Senator **Humphrey**. On page 13, your testimony regarding operation and support costs. You seem to concur in the administration's estimates of a continuing, fairly constant ratio between O&S costs and investment, is that correct?

Dr. **Penner**. That is correct. I feel uneasy about that relationship because it could change through time with particular kinds of investments. But in the past, it seems to have worked very well.

Senator **Humphrey**. Do you think they are realistically forecasting increased O&S costs, is what you are saying?

Dr. **Penner**. Let me put it in the double negative. I do not think it is unrealistic.

Senator **Humphrey**. Thank you.

Chairman **Nunn**. Senator Dixon.

Senator **Dixon**. Dr. Penner, as I look at this budget, it seems to me that the administration is asking for things generally that we have already dealt with before. For instance, most of the domestic cuts that the administration is suggesting we might be willing to consider are ones that have been presented to the Congress before when the administration had a majority, at least on the Senate side.

The user fees question we have gone into pretty thoroughly in most of the committees when the administration was in power on the Senate side.

Would you say, in view of all of that, that it is realistically plausible to provide for real growth in defense spending this year or over the next several years without increasing revenue sources?

Dr. **Penner**. I think that is a question for a politician, rather than for a technician, sir.

Senator DIXON. If you start with the assumptions I made, if we start with the assumption that the domestic cuts have been dealt with in the past and the administration has not made any progress when the Senate had a majority in support of the administration's point of view, and if you start also with the assumption that those user fees questions have not been successfully dealt with in the past, taking those assumptions into account, then I ask you, can you really consider any increase in defense spending this year without any revenue sources?

Dr. PENNER. While the administration's recommendations have not been accepted in every detail, you can see its influence by looking at past budgets. Although a lot of programs that it wanted to eliminate altogether were not eliminated, they were cut quite significantly.

I think that, just by asking the question the way you did, you have not fixed much of the budget. I was asked a similar question by Senator Danforth the other day, but he also assumed that Social Security and a lot of entitlements were frozen and he made other political judgments of that type.

If spending levels are maintained for that much of the budget, it will be very hard to provide increases in anything else, including defense. But in essence, this is a political question. I mean, from a technical point of view, you can cut Social Security, which is, as you know, the biggest domestic program, by far.

So I am afraid as a technician I do not really have much to offer you in answer to that question. I could speak as a citizen, but I am not supposed to do that in my current role.

Senator DIXON. We have had testimony in this committee that the defense buildup has been pretty front-loaded in favor of major weapons systems over the last few years. Would that be your analysis?

Dr. PENNER. To a degree. I have pointed out in my testimony that, with goods already ordered, you are going to have a substantial increase in the capital stock of weapons over the next few years, which is essentially independent of the procurement decisions you might make this year.

So in that sense, yes. And then of course, as I also point out in my testimony, to the extent that new weapons systems have been started, procurement of existing systems have also been stretched out.

Senator DIXON. Now, the chairman touched on this in his questioning, but if I could return to it and see if you could give me a specific answer. Given all of that as a factual situation, that we are pretty front-loaded in favor of major weapons systems, I would ask you, in those circumstances there are three ways I see to do something about this problem.

One is by reducing the level of support we give to existing forces. The second is by stretching out production on existing weapons systems. And the third is by delaying the start of new programs.

Now, taking those three simple alternatives, which one would you say is the one that we ought to select if we have to do something here to meet our budgetary constraints?

Dr. PENNER. All have some different effects on military capability, and there the uncertainties multiply. And I think you have to make judgments as to what kind of sacrifices you want to make.

What I can say very definitely is that, to the extent you use the stretch-out option, you are very probably going to face a significant increase in the unit costs. So to the degree that you focus on unit costs, which I suggested before is different from focusing on capability, then stretch-outs should be avoided.

Therefore, delaying the start of a new weapons system, so that once started it can be produced at a more efficient pace, makes considerable sense, unless that system, of course, is overwhelmingly important to the military services in terms of its capability. But all else equal, starting late and then producing at a more efficient rate makes a good deal of sense.

And then you get to the more difficult problem, of course, as you say, of actually cutting personnel or reducing operations and support. I hope I have not given the wrong impression when I talked about the fairly constant ratio between O&S support and the value of the capital stock.

I did not mean to imply that it was set in concrete in any way. Obviously, you can scrimp on maintenance and repairs, and you can find that a higher percentage of your tanks or planes are not operable. Those are the kind of risks involved in cutting O&S.

Senator DIXON. Is there not a lot of evidence that that is what we are doing now?

Dr. PENNER. I think not to a substantial degree. If I go back and compare it with conditions in the late 1970s, for example, when there was an overwhelming consensus that readiness was far out of whack with any kind of reasonable posture, I do not think there is that kind of consensus today.

Indeed, because of that consensus of the past, we have greatly increased our spending on operations, maintenance, and training. We have improved the quality of our personnel.

So while there are possible evolving problems that would get a lot worse if you continued zero real growth for a substantial number of years, right at this moment I cannot say that things are badly out of whack.

Senator DIXON. I thank the Chair.

Chairman NUNN. Thank you, Senator Dixon.

Senator Cohen.

Senator COHEN. Thank you, Mr. Chairman.

If I could just ask you a question, Dr. Penner. On pages 7 and 8 of your statement, you indicate that the numbers, CBO's economic numbers, are not forecasts, but rather projections that assume continued growth in the economy based on an historic experience.

Last week you testified before the Budget Committee and in that statement you said: "We have recently revised downward the projection of potential GNP and thus of long-term growth."

Are those two statements in conflict?

Dr. PENNER. No, sir. I guess we did not state it too well on page 8. While CBO's economic numbers beyond 1988 are generally based on historical experience, they have been modified somewhat to account for events that we have witnessed in the recent past. We have, in fact, lowered our growth path from what we assumed a couple of years ago.

Senator COHEN. The question I have is, it seems more of a "spin" on the testimony today before this committee in terms of saying that your projections assume continued growth in the economy based on historical experience. And it is a bit bleaker than your testimony last week before the Budget Committee that you have recently revised downward the projection of potential GNP.

Dr. PENNER. I think you have spotted something that I did not intend here, and I did not intend to put that sort of spin on it. Basically, the path that we are now using is somewhat lower than the path we were using, say, 2 years ago, largely because of our recent dismal experience with productivity growth.

Senator COHEN. I think you indicated in the testimony last week that some of the consequences will be reductions in research, development, the effectiveness of (R&D), and then technological obsolescence in manufacturing stock.

Secretary Weinberger has talked about enhancing the defense industrial base, which makes up a good deal of the economy itself. What is your assessment of the extent to which DOD can enhance the defense industrial base, and what impact that will have on reversing the long-term negative effects that you, foresaw at least, last week?

Dr. PENNER. I think it is generally agreed among economists that the rate of return to government investment in research and development [R&D] is quite high compared with the rate of return to other kinds of investment in physical capital. One of the major reasons for that is that, investors have so much trouble, given the ineffectiveness of our patent system, in protecting their rights to various discoveries.

So this is one area in which even very free market economists have advocated some sort of government role in subsidizing R&D. Subsidies are now provided indirectly through the tax system and directly with grants from a large number of Federal agencies, including the Department of Defense.

Now, it is also true that defense breakthroughs often have beneficial effects that can be applied in all sorts of walks of life aside from defense. I think one should not go too far along that line of argument, however.

I think that defense R&D should be judged fundamentally by what you hope to accomplish in terms of improved defense. Nevertheless, that kind of spillover, as economists call it, certainly does exist and should be taken account of when you decide how much to spend.

Senator COHEN. Dr. Penner, you've indicated what a change in the price of oil might do to these projections. You've also indicated the kinds of choices that are available to us in terms of across the board reductions under Gramm-Rudman, such as stretch-outs, and the impact this would have on the F-18 program, or reductions in force structure and so forth.

There is another controversy which seems to be brewing and that has to do with the discussion about the beginning of full-scale deployment in 1990, and deployment in 1993 or 1994, of some version of a ballistic missile defense.

The question I have is what would be the implications of such a decision upon the budget and the other defense programs, if you take into account, particularly what I understand to be almost the planned obsolescence of such an early SDI deployment, that once the program is deployed that they are virtually obsolete at that point?

What impact would that have on the rest of your projections and on the defense budget itself?

Dr. PENNER. Our projections simply do not take account of that sort of thing. Our projections simply hold R&D spending, for example, exactly constant in real terms. We attempt in these various budget functions to account for anticipated inflation. But any phenomenon such as the one you describe would have to be an add-on to the kinds of projections that we put forward today.

Senator COHEN. So, if we are going to have such a decision for an early development and deployment, that would increase the size of the deficit or cause a reduction, even further reduction in the other programs of further stretch-outs, which ultimately have a negative impact upon the overall budgetary and economic situation?

Dr. PENNER. That is right and can be said of any area in the defense budget. In order to maintain our projections a real increase in one part of the defense budget would call for a decrease somewhere else.

Senator COHEN. Thank you very much.

That is all I had, Mr. Chairman.

Senator LEVIN [presiding]. Senator Glenn.

Senator GLENN. Thank you, Mr. Chairman.

I would like to offer a note of caution on the issue of stretch-outs. I agree that sometimes we can save some money that way. However, the per unit costs go up. I also think we should go beyond simple economic analysis with regard to defense.

I do not think we can just make our decisions on what would be the least cost effective on a particular unit cost.

Dr. PENNER. I completely agree.

Senator GLENN. You touched on it just a moment ago. I have always believed that our defense proposals have been developed by the Pentagon in the wrong way. Defense Department officials come over and they tell us: The Soviets have so many bombers, we have so many bombers, and the Soviets are ahead of us in bombers; therefore, we need to buy more bombers.

We are not making a net assessment, a force assessment of what really wins battles.

If they have so many bombers, we should consider how many anti-aircraft weapons, how many missiles, and how many fighters in order to counter their offensive capability.

However, we never do that, even though it is the way I think we should develop our defense budget. Simply relying on unit costs may not be the best way to make the judgment. I think we should be making these decisions based primarily on our defense needs and the ability to exploit our own capabilities.

So I think simple unit cost is not necessarily the way to go on defense issues, we should be assessing the advantages and disadvantages of the dollars expended, which to me is more sensible.

Dr. PENNER. It is one that I agree with completely, let me say. I think that the problem is the issues that you are raising are very hard to deal with intellectually, so we tend to fall back on simpler things, like unit costs.

Senator GLENN. Yes, I agree. However, it is difficult to be in combat and not have the weapons systems you need. That is the key problem.

Defense is the one area in the budget that is driven by factors completely external to the United States, and that is why we run up against some problems. Everyone wants to devote a certain percentage to social programs, but domestic social problems are not generally driven by factors outside the United States.

If we go into sequestering as required by Gramm-Rudman, it would be devastating to our defense because we would have to make cut backs across the board.

This would drive up unit costs, and we would not be using a net assessment approach, which I think is vital.

Let me move into a whole different area. Do you think we should be raising taxes?

Dr. PENNER. As I said before, I think that is really a purely political judgment, not a technical judgment. Even the administration's budget, of course, has some increase on the revenue side. So I suppose it is really more a question of how much, rather than whether.

It really comes down to how much you think you can or want to cut from the spending side. There is nothing to prevent such cuts, but the political constraints are probably something you know a good deal more about than I do.

Senator GLENN. We are in reasonably good times now, but some of your projections are based on what happens if we go into a recession. For instance, page 8 of your longer statement, you indicate that we could raise over to a $266 billion deficit, about 6 percent of our GNP, pretty quickly.

Dr. PENNER. A very serious recession, yes.

Senator GLENN. That is really serious.

Along that line, what would happen to the deficit if the economy were to fall just 1 percent short of your expectations?

Dr. PENNER. If it were to fall 1 percent starting right now, the difference in the deficit in fiscal year 1988 would be an increase of $16 billion over the projected $169 billion.

Senator GLENN. As a rough rule of thumb, about a 1 percent change would give us about $16 billion?

Dr. PENNER. $16 billion. But of course, if you extend the 1 percent error forward, the number explodes. By 1990 it is $52 billion; by 1992, $105 billion. So it really gets very large.

Senator GLENN. That is the change?

Dr. PENNER. That is the delta, yes, sir.

Senator GLENN. That would be added onto our 174 or 200 or whatever it was at that point?

Dr. PENNER. No, it would be added onto the CBO baseline, which is $85 billion in fiscal year 1992.

Senator GLENN. On the readiness account, you mentioned that there has been a rather constant ratio and you did not show much concern about that. Are you concerned that those readiness accounts have been too low all along?

Dr. Penner. No, I did not mean to imply that current spending is too low. I did want to voice some concern about the kind of pressures created if future increases are too low. As I said before, I think there was a broad consensus among almost anybody you talk to that the operation, maintenance, and training accounts were far too low in the late 1970s. We have, however, increased spending for those accounts in a very major way since then. So I do not think one can say that spending in the defense budget is obviously out of balance right now.

Senator Glenn. A portion of that, of course, are the actual ammunition accounts, the weapons themselves, the torpedoes and so on. I think there are a number of areas where I think we have failed to develop the proper balance. And I think we have a long way to go in those particular areas.

Now, there are many things that go into the readiness account besides ammunition and missiles. And I would agree with you, we made some major strides in those other areas.

Dr. Penner. We have looked at particular areas, like POMCUS. We did a study of that several years ago and so on.

Senator Glenn. My time is up, but I have an additional comment. I was thinking more in terms of we spend billions buying attack submarines, then we provide less than two torpedo loads for the submarine fleet.

It is a classified figure as to how far under two, but it is considerably lower than two. I can say that in open session here, that we are spending billions for submarines but we don't have the ability to sustain our combat efforts.

This is sort of a false economy, when we don't provide the necessary weapons. For instance, not too long ago, we were actually cross-decking missiles in the Indian Ocean. When a carrier would go out to relieve another carrier on station, we were having to cross-deck missiles with the F-14 because we did not have enough of them.

There was one supply out there and they had to cross-deck them so that they had something to shoot if there was combat in that part of the world. That to me is about as false an economy as we can get.

We spend tens of millions of dollars on F-14's and do not put the necessary missiles out there to shoot if a war starts. It just does not make much sense.

My time is up. Thank you very much.

Senator Levin. Senator McCain.

Senator McCain. Thank you, Mr. Chairman.

I would like to express my total agreement with many of the comments that Senator Glenn just made. Particularly since I do not think there is ever any possibility of matching our potential adversary bomber for bomber or plane for plane or gun for gun.

I am also pleased that this issue of readiness has again arisen. I remember what it was like in the late 1970s, when we were literally devastated, not only in terms of materiel, but in terms of morale of the men and women who are in the armed services. And that is not to say that we do not have a great deal to do, and I think there are some alarming aspects of the proposed defense budgets. Maybe some people over in the Pentagon have forgotten the lessons of the late 1970s. We are in danger of recessing into that same kind of lack of readiness, both in materiel as well as personnel is concerned.

Mr. Penner, I appreciate not only your testimony here today, but also the very difficult task you have of making economic assumptions. I am reminded of the words of that great philosopher, Yogi Berra, who said: Never try to predict, especially when you're talking about the future.

I really find it hard to believe that we could realistically accept a 10-year recovery, without any recession. I am also aware of the kind of media coverage you would get if you predicted a recession.

Dr. PENNER. Well, let me——

Senator GLENN. Could I interrupt for just a second? Mr. Chairman, could we get unamimous consent that if we have additional questions to be submitted, that Dr. Penner could answer them for the record?

Senator LEVIN. Sure, we will keep the record open the normal length of time, whatever the chairman says is the normal length of time.

Senator GLENN. Thank you very much.

Dr. PENNER. We try to differentiate between our forecast—which extends through 1988, and in which we do not foresee a recession—and what we call our projections—which cover the 1989-1992 period and during which we do not rule out recessions in that period, but cannot judge when they would come. During the latter period, we project a fairly low average rate of growth. So while there might be a mild recession in one part of that period, we assume that would be made up by above average historical growth in another part of the period. We have not intended to abolish the business cycle with our projections at all.

Senator MCCAIN. Thank you.

I also would like to just comment a little bit on your statements concerning O&S funding. I do not think—I hope you are aware that it does not necessarily follow that more personnel are required, or a higher cost, with more sophisticated equipment.

In fact, with some of our equipment, thank goodness, that has been the opposite. The F-18, the A-7, and the Apache helicopter have required less maintenance hours than its predecessors.

Dr. PENNER. No, we certainly understand that. Indeed, some investment is designed for the express purpose of lowering O&S costs.

But historically that relationship between a higher stock value and higher O&S costs has existed, and a continuation seems to be implicit in the President's budget. That is all we are saying.

Senator MCCAIN. And I agree with that, but I think the increase will probably be due to the increased personnel costs. As we have a shrinking labor pool, I think we are going to have to provide more and more incentive for those remaining scarce manpower assets to serve in and remain in the military.

Which brings me to the question, have you ever been asked or out of intellectual curiosity looked at the costs of a system of national service of any kind?

Dr. PENNER. I think a very long time ago, long before I came to CBO, there was such a study. But it would be outdated right now.

Senator MCCAIN. Have you ever done studies on the subject of U.S. contributions to NATO?

Dr. PENNER. We have done things related to that, yes, sir. For example, a few years ago, we did some analysis both of the Nunn amendment about the effects on the budget of withdrawing some U.S. forces from NATO, and of the burdensharing issue. [Studies provided to the committee.]

Senator MCCAIN. Could you provide for the record and to my office that information that you have? And I would also specifically be interested in what the effect of a reduction of 100,000 troops over time, as recommended to this committee by Dr. Brzezinski, and those 100,000 forces being converted into light infantry divisions.

The case is being made by the Pentagon that it will not only not save money, but it will be more expensive. Given that those divisions would be converted to a much less expensive role, I would be very interested in that information.

Dr. PENNER. Yes, I think we can provide you with a lot of information on that. I doubt, however, if our current work on burdensharing will be finished before the record is closed. We have an older study, but we are doing some more work on it. We will keep you informed of that. [Study provided to the committee.]

Senator MCCAIN. I am aware of the very great difficulties involved in making that kind of assessment. So I would be glad to wait for answers.

You mentioned on page 19 that a more practical approach of realizing the long-term benefits of rapid production and multi-year contracts, delaying initial production of selected systems. I certainly agree with that approach.

I think we are going to have to make some very difficult decisions in the Congress, because I do not see how we can start up 29 new weapons systems with any possibility of also staying within the budget constraints.

In your opinion is the LHX helicopter a possible candidate for such treatment, given that it appears that the Apache helicopter is both a very new and very successful weapons system?

Dr. PENNER. I would rather not answer that right now, sir. Let us supply you with that for the record. We have done only a little bit of work on that.

[The information follows:]

The LHX program is designed to produce a family of helicopters to replace the Army's current fleet of Vietnam-era helicopters which is composed primarily of the AH-1 Cobra, the UH-1, and the OH-58 and OH-6. This aging fleet includes a total of about 7,000 attack, utility, and scout helicopters. The LHX, as it is currently conceived, will be produced in at least two versions: utility and scout/attack.

The Army unquestionably must, at some point, replace or upgrade significantly its fleet of Vietnam-era helicopters. The Army would like to replace these aging helicopters with approximately 4,500 LHX aircraft. Concerns have been expressed, however, concerning the advisability of the Army's LHX program as currently structured. CBO has been asked by the House Armed Services committee to examine various alternatives to the Army's plan to replace its AH-1, UH-1, and OH-58 helicopters with the extremely sophisticated LHX. Possible alternatives include purchasing more and possibly upgraded AH-64s and UH-60s, adapting commercially available helicopters to the utility role, in particular, and upgrading the existing

Cobras and UH-1s. In Volume II of our annual report, "Reducing the Deficit: Spending and Revenue Options," CBO did include an option that dealt with cancelling the LHX helicopter and procuring instead AH-64 and UH-60 helicopters.

Senator McCAIN. Thank you. My time has expired, but I think your statement is a very important one and one that has been very helpful to the committee.

Thank you, Mr. Chairman.

Senator LEVIN. Senator Wirth.

[No response.]

Senator LEVIN. Senator Shelby.

Senator SHELBY. Dr. Penner, getting to the basic budget, the defense budget, what percent—and I believe on page 11 of your testimony, you say roughly 55 percent of the defense budget is made up of O&S, is that correct?

Dr. PENNER. That is right, yes.

Senator SHELBY. Could you provide me that breakdown or provide this committee and my office the breakdown of the specifics of how O&S is spent, where it is spent? Can you do that, if you do not have it today?

Dr. PENNER. Let me introduce Mr. Robert Hale, our Assistant Director in charge of national security, and he will give you the numbers.

Mr. HALE. Included in that is the military personnel, operation and maintenance, and the operating part of family housing.

Senator SHELBY. Pensions?

Mr. HALE. We now do what is called accrual budgeting. So we are setting aside money in there for future retirement costs. In that sense they are included, but not the past costs. Those are no longer in the defense budget.

Senator SHELBY. But the current and the projected figures?

Mr. HALE. Money for future pension liabilities is included in that 55 percent. Roughly half—I think I am close on that, and I will correct it for the record—is made up of personnel, military personnel.

Senator SHELBY. What about the other 45 percent? That is for the weapons systems?

Mr. HALE. Procurement, research and development, and military construction are the primary accounts that make up investment.

Senator SHELBY. And it is broken down by each weapons system, for example?

Mr. HALE. Yes, within the R&D or procurement accounts, it is broken down by weapons.

Senator SHELBY. Can you furnish that information to the committee and to my office?

Mr. HALE. Sure.

Senator SHELBY. By each weapons system, the cost.

Mr. HALE. For the major weapons systems, we have that.

Senator SHELBY. And in that, could you furnish the information on what systems are multi-year procurement contracts and which have been stretched out? And I know you have done an analysis, a preliminary analysis, on some of the costs of one versus the other, the stretch-out versus the multi-year contract, is that right?

Mr. **Hale**. Yes. Some of that is summarized in Dr. Penner's statement. I will be glad to give you the backup that we have on that. It is not all done.

[The information follows:]

The Department of Defense (DOD) has not submitted a final list of candidates for multiyear production contracts beginning in 1988-1989. The budget justification materials required by the Congress for multiyear candidates are currently being prepared by the department for submission in the coming weeks. An initial list of nine multiyear candidate programs, however, has been provided by DOD. Six programs have been identified as candidates for approval beginning in 1988: there are three multiyear program candidates for 1989:

1988 Multiyear Candidates: High Mobility Multipurpose Wheeled Vehicle; AN/ALQ 136 Radar Jammer; Hawk Air Defense Missile; TOW II Antitank Missile; Harpoon Missile; Defense Meterological Support Program.

1989 Multiyear Candidates: CH-47 Helicopter Modification Program; IIR Maverick Missile; F-16 Aircraft.

An initial review of major production programs identified in the 1987 and 1988 DOD budgets indicates that production rates for 26 major programs have been reduced below 1987 planned levels for 1988. These reductions may be either program stretchouts in cases in which total program requirements have not changed, or overall program reductions. A distinction cannot be made at this point until supporting budget materials for the programs have been received by the Congress. Programs for which production rates have been reduced include:

Army: RC-12 Aircraft; AH-64 Helicopter; Chapparal Missile; Stinger Missile; TOW II Missile; Bradley Fighting Vehicle; FAASV Armored Vehicle; M-1 Tank.

Navy: EA-6B Aircraft; AV-8B Aircraft; F-18 Aircraft; Sidewinder Missile; Harpoon Missile; HARM Missile; Hellfire Missile; IIR Maverick Missile; MK-48 ADCAP Torpedo; ALWT Torpedo; Vertical Launch ASROC Missile; Close-In Weapon System; Vertical Launch System.

Air Force: F-15 Aircraft; F-16 Aircraft; Peacekeeper Missile; IIR Maverick Missile; AMRAAM Missile.

Senator **Shelby**. This is an ongoing study?

Mr. **Hale**. The stretch-out portion is an ongoing study for this committee, and it is literally in progress.

Senator **Shelby**. Have you found preliminarily that the stretch-out is not cost effective?

Mr. **Hale**. I go back to Dr. Penner's statement. If by that you mean effects on unit costs, for many of the systems we look at it is clear that stretch-outs increase unit costs.

Senator **Shelby**. By budget costs?

Mr. **Hale**. Budget cost. To buy the same number, it is often more expensive if you choose to buy them at lower rates. This issue has been raised by several members, and is certainly true.

We cannot judge the issue of military capability involved here. If a weapon is absolutely needed for national security, then it may well be worth the price even if it is produced slowly and at high unit cost. But abstracting from that, it is clearly true that for many systems it costs more to buy the same number of weapons if you choose to do it slowly.

Dr. **Penner**. But the capability issue that Senator Glenn stressed is a very, very important one. We look at unit costs because basically, as I said, it is intellectually easier than looking at capability.

Senator **Shelby**. Dr. Penner, when you stretch it out, though, are you not in a sense delaying when you can deploy these weapons systems, too? That is another aspect other than the cost.

Dr. **Penner**. That is true, that is absolutely true. And it is even more true if you talk about the other option I raised, which is delaying the start of the system so as to achieve more efficient rates.

Obviously, then you completely lose the services of the system in the short run.

Senator SHELBY. Going back to my other request, in addition to breaking down the cost of these various weapons systems you were talking about, could you furnish to my office and to the committee a breakdown on which weapons systems have been canceled in the last few years?

Dr. PENNER. It's a very short list, sir.

Senator SHELBY. What about contracts, too?

Mr. HALE. You may be stretching our capabilities. I don't want to mislead you. What you're going to get is a summary of the budget documents, which is where this information is provided.

There's no magic here. Since many contracts may be associated with a particular weapon system, they have less visibility than the system itself, at least at the level we're working at.

Let me work with your staff, if I could, to get something that will be useful to you.

[The information follows:]

Our initial review of procurement programs identified in the 1987 and 1988 defense budgets indicates that six production programs have been canceled. Under our analysis, a system is considered "canceled" if a purchase was planned for 1988 in the 1987 budget, but was not funded in the 1988 President's budget. In addition, no procurement funding was planned for such programs in 1989. Programs that meet this criteria include the Army Helicopter Improvement Program, P-3C aircraft, Sparrow missile (Navy), Standard Missile 2 (Extended Range), Mark 46 Torpedo, and the TR-1 aircraft.

Other major procurement programs canceled in recent years include the Division Air Defense system (DIVAD), the Low Level Laser Guided Bomb (LLLGB), the T-46 training aircraft, the Precise Location Selection System, and the Mobile Protected Gun System.

Senator SHELBY. Thank you. Thank you, Mr. Chairman.

Senator LEVIN. Senator Gramm.

Senator GRAMM. Thank you, Mr. Chairman.

Dr. Penner, I appreciate your testimony. I'm sorry I've been in and out doing other things today.

There are just a couple of points I'd like to touch on. First of all, when do you think that you'll have a thorough analysis of the Reagan budget so that we can get a fix on exactly what the CBO scoring numbers are going to be?

Dr. PENNER. I think I'm scheduled to testify before Senate Appropriations on that, I believe it's something like February 22, somewhere around that date.

Senator GRAMM. Much of your difference with the administration, as you've outlined here—and I did catch that part of the speech—is about projected spend-out deficiency payment. In ballpark terms, what is your projection of the administration revenue figure? I think they project $74 billion.

Do you have a ballpark figure on that revenue projection?

Dr. PENNER. Given constant law—the administration, of course, recommended some changes in the law—but given constant law, there would be if I remember correctly, a $10 billion difference on the revenue side because of economic assumptions. Well, really, economic and technical. There's very little technical.

Senator **Gramm**. So they're projecting about a $74 billion, so if you scored their tax changes the way they do, you'd be looking at roughly $64 billion revenue in ballpark terms?

Dr. **Penner**. You're talking about the increase in revenues, sir?

Senator **Gramm**. Yes.

Dr. **Penner**. Let me see. In the ballpark, yes. I come out $2 billion different from you, but that's the same ballpark.

Senator **Gramm**. Now, you're projecting a current services deficit for 1988 of what?

Dr. **Penner**. $169 billion.

Senator **Gramm**. So, in essence, to reach the targets of Gramm-Rudman, you'd have to achieve an aggregate spending freeze?

Dr. **Penner**. In nominal terms, yes.

Senator **Gramm**. Two other questions I'd like to ask.

One, I'd like to ask you to provide to the committee an assessment of ways that we can improve the efficiency, in terms of budgetary impact, of the things that we do.

I know you can't recommend, obviously, how much we choose to spend on defense and how much we choose to spend on nondefense. That's the Congress' duty.

You can answer our questions about stretch-outs, and I have to admit that I'm very much in agreement with what I hear to be your initial assessment. I think, quite frankly, stretching out weapons procurment is not a good policy. You don't get close to your low point on your long-term average cost curve.

I think that if we're going to save money, we ought to just decide which weapon we're not going to build, and not build them, and build the ones we're going to build at efficient rates.

But I'd like you to give special attention to a series of things that we have debated in the last couple of years that we have adopted in committee, that we have won on the floor and then lost in conference.

They are things that have to do with strict economics. For example, Davis-Bacon provisons of military construction. We always get an estimate as to how much we could save, and I know it's difficult, but I'd like to ask for at least ballpark directional changes that would go a little bit beyond that, and look at what repeal of Davis-Bacon or raising the threshhold would do in terms of additional competition, new firms entering government and military construction, a savings that I think we often don't get in these estimates.

The same thing with things like the Service Contract Act, where we're going to buy services, how much we buy is a decision by Congress. But clearly, one of the functions of the Congressional Budget Office is to at least give us the cost of various methods of procuring it.

And I'd like to ask that at least some discussion be given us that can be used in this debate, not just about the savings from repealing the Service Contract Act or raising the threshhold to a million, but again, what savings might accrue in terms of firms that don't go into the business, limitations on supply.

Because firms don't want to be operating part of their business paying one wage scale, mandated by government, at the artificial scale, and the other for the market.

I know you put out the book every year. I think if you could take the savings projected in it that relate to defense, what I would call the organization decisions, the efficiency decisions, and also add on it some little analysis of how the market might react to these things, I think it would be very helpful.

I think we're going to have a very difficult defense authorization bill to adopt. And I think if there's ever a time, or has ever been a time, that we ought to be looking at all of these laws that put restrictions on wage rates and methods of operation, that it's now.

If you can provide those to the committee, and I know you are burdened with a lot of things, but we're not going to mark up our authorization bill until April. If you could do that, I think it would be very helpful to us.

Dr. PENNER. Let me suggest this, Senator. Let's get our respective staffs together to make sure we have a complete list. I think some of these things we have readily available; others take some more work.

And I think GAO has done a lot of work in some of these areas, too, so we will plumb what's available for you.

[The information follows:]

Estimating the direct federal costs associated with the requirements of the Davis-Bacon Act (DBA) and the Service Contract Act (SCA) is a difficult and uncertain undertaking at the best of times. Substantial controversy surrounds assessments of whether the prevailing wage determinations and other requirements raise labor costs substantially or whether the higher wages are offset partially or completely by differences in productivity. Although CBO continues to estimate budget savings from reforms of the DBA and SCA, these estimates represent our best guess at the magnitude of the additional costs. We also recognize, however, that the confidence intervals around those estimates are relatively large.

The question of the potential effect of the legislation on the competitiveness of the construction and service industries probably varies among local labor markets, depending on the size of the market and the relative number of federal contracts in the area. One 1982 study reported that about 20 percent of open shop contractors who performed federal construction stated that they would no longer be interested in bidding on projects covered under the DBA. An additional 23 percent reported they would probably not bid on DBA covered construction. (These responses were made before changes in the determination of prevailing wages were implemented in 1983. This may have reduced the disincentive to bid on federal construction projects.) Although these responses would indicate some increase in competition might ensue from the repeal or relaxation of DBA requirements, it is not possible based on current data to estimate this direct effect on federal costs. Similar problems exist in estimating the effect of the SCA.

Senator GRAMM. Thank you. Thank you, Mr. Chairman.

Senator LEVIN. Senator Wirth.

Senator WIRTH. Thank you, Mr. Chairman.

Mr. Penner, thank you again for your splendid service to the Congress and the country in CBO over the last 4 years. We greatly appreciate it, and wish you well in your new assignment which I understand you take on mid-Spring.

Dr. PENNER. Thank you very much, Senator.

Senator WIRTH. If I understand your testimony correctly, we are looking now at a deficit of about $160 billion.

Dr. PENNER. $169 billion for 1988, yes.

Senator WIRTH. And the Gramm-Rudman target is $108?

Dr. PENNER. That's correct.

Senator WIRTH. So we have to find $61 billion; $51 billion under the assumption that we have a $10-billion fudge factor?

Dr. **Penner**. That's correct.

Senator **Wirth**. And we have pretty much declared that Social Security is off limits.

Dr. **Penner**. That's your judgment.

Senator **Wirth**. Well, that's been declared by the Congress. And the administration, despite some $20 billion of revenues in their budget, has declared revenues off target; isn't that your understanding?

Dr. **Penner**. That's my understanding.

Senator **Wirth**. And over the last 5 years, we have put this enormous squeeze on all of the discretionary programs. The assumption is that most discretionary programs have been pushed just about as far as they can go.

Dr. **Penner**. Again, that's your assumption. Certainly the trend is very impressive in that the nondefense discretionary part of the budget is now taking up less of GNP than it did in the early 1960s.

Senator **Wirth**. The assumption is that there is not much more there. I think if you look at that, or look at your annual——

Dr. **Penner**. There is only about $170 billion in total, although we will, in our budget reduction book, have a lot of options, some quite radical.

Senator **Wirth**. And then we look at the remainder of the budget which is defense, which is what we're talking about this morning.

Dr. **Penner**. Yes.

Senator **Wirth**. And I think realistically if we look at what happened in Reykjavik and we look at the increasing concern in the country about nuclear weaponry as well as an increasing commitment to conventional weaponry, it's realistic to suggest that we're not going to make any large cuts in the defense budget?

Isn't that a correct assumption, given what you hear in the breeze?

Dr. **Penner**. Well, I have given you the kind of pressures that exist because of what we have done in the past.

Senator **Wirth**. So we sit with about $160 billion deficit spending. And it doesn't seem to me that if we look at revenue, Social Security discretionary programs and defense, there isn't much with which to reduce the deficit is there?

Dr. **Penner**. You have covered the waterfront. You didn't mention interest on the debt. We might repudiate the debt.

Senator **Wirth**. I think we're serious about looking at this so-called competitiveness issue, which I guess is our euphemism now for trade. If we're serious about doing something about competitiveness or trade, don't we have to start by doing something about the deficit? Isn't that the single largest variable in our trade deficit problem?

Dr. **Penner**. We think so. According to our analysis at CBO. There are economists that will disagree with me, but I think I see a very close linkage between the budget deficit and the trade deficit.

Senator **Wirth**. Who are the economists that disagree with the correlation between the domestic deficit and the trade deficit?

Dr. **Penner**. I don't think the administration has bought that kind of relationship. I also think there are a lot of differences in terms of the strength of the relationship that various economists see.

CBO sees a very strong one. Some might admit there is one, but suggest it's weaker.

Senator **Wirth**. Most economists, I guess most analysts, would agree that if we're going to be serious about the trade issue, and if we're going to really move on the so-called competitiveness issue, the place to start is the deficit.

Dr. **Penner**. I think that's the consensus.

Senator **Wirth**. We find in the earlier discussion that we don't appear to be doing much about the deficits, so we're pretty much stuck dead in the water on the trade issue as well.

Dr. **Penner**. I think that's right. In my judgment, it would be extremely difficult to get any improvement in the trade balance without some budget deficit improvement.

Senator **Wirth**. It seems to me, then, it's extremely hard for us to say we're going to make any real progress on the domestic deficit, which the American taxpayer I believe now understands, and the trade issue, which the American taxpayer is increasingly concerned about, unless somehow we break the dike in one of these other areas so that we can bring that deficit down.

The logic of that, it seems to me, is inexorable. But we continue to bury our heads in the sand and think maybe it's going to go away.

Dr. **Penner**. In broad outline, I have to agree with your rather gloomy outlook. I feel I should also say, however, that we have made progress. Despite all the kinds of difficulties that you talk about, 2 years ago at this time, we were talking about a baseline deficit for 1988 of $249 billion rather than the current $169 billion.

At that time, we used the budget resolution numbers for our defense baseline, because we seemed so committed to them. That was perhaps wrong. But even at that time, we did make some computations with zero real growth in defense, and the deficit was still over $200 billion.

So there's been some progress. Not enough by many people's definition, but some progress.

Senator **Wirth**. Let me ask you, If I might, a final question which touches on the issue that's been brought up by so many, the issue of program stretch-outs, and how inefficient and ineffective that method of purchasing is.

The costs of program stretch-outs can make a $7,000 coffee pot seem like nothing at all.

Dr. **Penner**. Yes, cheap.

Senator **Wirth**. Your budget choices book is scheduled for release soon, is that correct?

Dr. **Penner**. That is correct.

Senator **Wirth**. Will the budget choices book have a list of weapon systems that might conform with your suggestion earlier that a more practical approach might be to delay the initial production of selected systems? That's on page 19, of your testimony.

Will you have a list of your suggestions regarding which systems might be delayed?

Dr. **Penner**. We have a few. We do not have a complete list in the book.

Senator **Wirth**. Can we get it? Can we get what you think would be your—if you make the statement on page 19 about delaying the initial production of selected systems, following from that, OK, which systems are you talking about?

[The information follows:]

The Congressional Budget Office publication, "Reducing the Deficit: Spending and Revenue Options," contains an option to defer new program starts to 1990. The option includes the possible deferral of new major research and development programs as well as new production starts scheduled for 1988 and 1989. In estimating possible savings, the option assumes that research costs for new production programs would be sustained at their 1987 level to ensure continuity of the program.

Programs contained in the option include the following:

RESEARCH AND DEVELOPMENT

Army: Advanced Antitank Weapon System; Family of Tactical Vehicles (Heavy); Family of Tactical Vehicles (Medium); Armored Family of Vehicles; Evolutionary Surface-to-Air Missile.

Navy: P-3 Modernization Program; NATO Air-to-Air Weapon System; Improved Strategic Communications; V-22 Antisubmarine Warfare Variant; Advanced Air-to-Air Missile; Air Defense Initiative (Joint Program).

Air Force: Worldwide Command Post; Air Defense Initiative (Joint Program); Peacekeeper Rail Garrison Basing Mode.

INITIAL PRODUCTION PROGRAMS

(Includes long-lead procurement funds for programs and initial production funds for others.)

Army: RC-12 Aircraft; Air Defense System (Heavy); Non-Line of Sight Air Defense System; Advanced Tactical Missile; Tri-Tac Equipment; SINCGARS Radio Family.

Navy V-22 Aircraft; P-3 C/G Aircraft; EX Aircraft Competition; T-45 Jet Training System; Aircraft Carriers; SSN-21 Submarine; LCAC Air-cushioned Landing Craft.

Air Force: C-17 Aircraft; Small Inter-Continental Ballistic Missile; Space Defense System (ASAT).

Senator WIRTH. Is there a CBO estimate or CBO recommendation as to which systems are a higher priority and which are lower priority?

Dr. PENNER. Not in terms of priorities, no, sir. We look at a few options that you might consider. I hope we have given you a fair accounting of the advantages and disadvantages of each of those options.

We have looked only at some major decisions of that type. We could probably identify some less important ones as well.

Senator WIRTH. Could you do that? If you could talk to your associate and put that together, I'd appreciate it.

Chairman NUNN. Senator Wirth, last year the Congressional Budget Office, at my request, did a hypothetical, not an advocacy piece, not taking specific weapons systems and saying they ought to be delayed, but what you could hypothetically do by delaying major starts and putting that same money on existing systems.

And I'll get that and share it with you in just a minute. But that was not something they advocated, nor was it something I advocated. But it was an interesting example of what you could do with the same number of dollars on existing production lines versus new starts.

Senator WIRTH. And has it changed significantly since last year? Would there be some minor update of that particular analysis?

Dr. PENNER. We are updating that analysis and, in the deficit reduction volume, will look at the savings from the delay of particular systems.

Senator Wirth. I'd certainly appreciate it and I look forward to seeing it. Thank you, Mr. Chairman.

The budget choices document is so important. As you remember, Congressman Panetta and I started it in the House Budget Committee some 10 years ago. It's a very valuable document and we look forward to receiving that.

Thank you, Mr. Chairman.

Chairman Nunn. At this point we have three of our most senior members—I'm perplexed about it. Senator Levin waived this turn. Senator Thurmond is theoretically entitled—Senator Thurmond, you're recognized now, and then we'll go to Senator Levin.

Senator Thurmond. Dr. Penner, we're glad to have you with us.

I believe you indicate that current service goals for modernization cannot be realized in the President's budget proposal of 3 percent real growth for the next 5 years.

Can you estimate for us what the dollar differences are between stated service goals and the President's request?

Dr. Penner. We have done some analysis of that sort of thing, both with regard to the Navy and the Army. I'd be pleased to provide those for the record, sir.

There's a very brief summary on page 10 of my testimony, but we have some more information on that.

[The information follows:]

CBO estimated the costs of meeting the Army's and Navy's goals based, respectively, on an Army statement of its goals, prepared in February 1986, and on a 600-ship Navy. Because service budgets include some portions that cannot be predicted by a single universally accepted method, CBO used a variety of methods to obtain a range of estimates of the costs of meeting the Army's and Navy's goals. Based on the results of the analysis presented in the CBO study published in December 1986, the President's request for an Army budget of $79.4 billion for fiscal year 1988 is about $8 billion ($7.8 billion to $8.2 billion) below that needed to meet the Army's goals. Similarly, the Army request of $87.6 billion for fiscal year 1989 is $10.4 billion to $11.1 billion below the level CBO estimates the Army would need to meet it goals.

With respect to the Navy's goal for a 600-ship fleet, CBO analysis included in a report published in September 1985 indicates that the Navy would need $17.4 billion to $20.7 billion more in fiscal year 1988 and $13.8 billion to $21.7 billion more in fiscal year 1989 than requested in the President's budget. These data, however, might overstate the actual funds required. Since the report was published, Navy plans for ships and aircraft have changed. Thus, even though a 600-ship Navy is still an achievable goal, the mix of ships and aircraft will not be the same that was assumed in the 1985 study. Inflation has also been lower than expected which should reduce further the funds required in 1988 and 1989.

Senator Thurmond. Mr. Chairman, I have some other questions. But I understand while I was at the White House that he has answered those questions. So I have no other questions.

Chairman Nunn. Thank you, Senator Thurmond.

Senator Levin.

Senator Levin. Thank you, Mr. Chairman.

Dr. Penner, we also wish you well.

Given the answers to Senator Wirth's choice of options for us, your departure is very wise for many reasons. We're stuck here having to face those options.

But we will miss you. You've done a wonderful job.

Dr. Penner. Think you, sir.

Senator Levin. Let me pick up first on the question Senator Wirth asked you, and Senator Nunn reminded us that CBO is conducting a study on what could be saved from the cancellation or delay of various systems.

Can you provide for us the costs associated with cancellation or delays? In other words, on page 19, when you discuss the desirability, or at least the possibility, of delaying the initial production of systems, could you provide for the record what the additional costs would be, if any, when we delay those systems?

Dr. PENNER. Do you mean because of inflation?

Senator LEVIN. Or otherwise.

Dr. PENNER. Yes; of course, that becomes more and more uncertain. But we could do that, given our economic assumptions.

[The information follows:]

In our analysis of the costs and savings associated with deferring new defense production starts, we assumed that research and development efforts for such programs would be maintained at the levels funded in 1987 in order to ensure a degree of continuity for the programs for the period of deferral. We estimate that, by deferring production starts for 16 programs to 1990, it is possible to save about $2.6 billion in 1988 and $5.9 billion in 1989 in procurement costs (in 1988 dollars). Assuming that total program plans and requirements remain the same, possible additional costs could partly offset the savings as the deferral exposed the programs to potential added inflation during the 2-year extension.

Senator LEVIN. Well, the inflation costs I think we know. We should know if there's any particular cost associated in addition to inflation with any particular——

Dr. PENNER. I do think that the cost we have difficulty judging is the cost of capability, which is what Senator Glenn and others have stressed today as really the important cost.

And that becomes much more a matter of expert military judgment. I think that kind of question is better responded to by——

Senator LEVIN. I wasn't referring to that cost, and I agree with you, that's not a judgment you can make. I'm talking about the actual acquisition costs.

If you could try to find out, give us any particular acquisition cost associated with the delay in addition to inflation. For instance, maintaining engineering teams together.

Dr. PENNER. Oh, I see.

Chairman NUNN. The assumption there would be that you kept the R&D activities together in your hypothetical during a 3-year delay. So your assumption would be, you kept the teams together over the 3 years so that you could then take up the 4th year where you left off.

Dr. PENNER. I see, sir, yes; we could take a look at that issue.

Senator LEVIN. We received testimony from Larry Korb the other day which shows that for instance there's a dramatic reduction in the readiness and sustainability related accounts. For instance, Army spare parts, the actual 1986 budget was $2,300,000,000, and the request for 1988 is $1,800,000,000; a 22-percent reduction in Army spare parts.

Similar reductions have occurred in other sustainability and readiness accounts. Reductions in Army ammunition and tactical missiles; reductions in Navy spare parts; reduction in Navy ammunition, tactical missiles, and so forth.

Now, this differs somewhat from your earlier testimony as I understand it. You testified that DOD's investment accounts and our operating accounts are roughly in balance, and would continue to be in balance.

I'm wondering whether or not you might take a look at this chart, I don't mean today, but for the record, take a look at his Table No. 2 and tell us whether or not that conforms with your own understanding of where we're going on these two parts of the budget.

Dr. PENNER. I don't think there really is a substantive difference of any significance between us. He uses stronger language to describe the kind of pressures that we face. But we were talking about similar things.

In my testimony, I talk about the fact that we do have all these systems coming onstream, and they're going to have to be maintained and operated and so on.

Senator LEVIN. Would you check his figures for us and tell us, not today but for the record, and tell us whether they're accurate. His figures give a pretty dramatic picture of where we're going to be losing dramatically some needed funds for spare parts, for ammunition, and so on.

Dr. PENNER. Mr. Hale would like to add something to that.

Mr. HALE. We have not looked at what is typically called sustainability—the torpedoes, ammunition, and so forth needed to conduct a war. When we define readiness, we're looking at day-to-day readiness, including personnel and the operation and maintenance accounts.

Dr. Korb emphasizes the sustainability issue of not buying enough weapons and ammunition and so forth. I don't think we have any disagreement with Korb's analysis, although CBO has not looked at this issue in detail.

I also think there's no disagreement between us and Dr. Korb on readiness as we've defined it—operating and support costs. He says they'll have to go up some; our analysis tends to support that.

Senator LEVIN. Would you take a look at that and give us your analysis of that?

Mr. HALE. Sure.

[The information follows:]

We have looked at the numbers provided in Table 2 of Dr. Korb's testimony before the committee on January 20, 1987. With the exception of the Selected Army Support Equipment, Navy Ammunition, Tactical Missiles, and selected Air Force Support Equipment, we were able to replicate his numbers or obtain approximately his numbers. All data in the following table were derived using the Procurement Programs (P-1) exhibits submitted with the fiscal years 1986, 1987, and 1988 budgets.

72B

REDUCTIONS IN READINESS AND SUSTAINABILITY RELATED ACCOUNTS IN THE FISCAL YEAR 1987 AND FISCAL YEAR 1988 DoD BUDGETS
(In millions of dollars)

	Actual FY 1986 Budget a/	Projection for FY 1987 in FY 1986 Budget	Request for FY 1987 in FY 1987 Budget	Congressional Appropriation FY 1987 b/	Projection for FY 1988 in FY 1987 Budget	Request for FY 1988 in FY 1988 Budget
Army						
Spare Parts	2,049.7	3,238.9	1,994.7 -38.4%	1,707.7 -47.3%	2,364.9	1,823.6 -22.9%
Ammunition and Tactical Missiles	4,321.3	5,541.1	4,137.8 -25.3%	3,782.7 -31.7%	4,732.9	4,202.5 -11.2%
Selected Support Equipment c/	--	--	--	--	--	--
Navy						
Spare Parts	1,577.9	2,909.3	2,355.4 -19.0%	2,092.6 -28.1%	2,365.6	1,980.1 -16.3%
Ammunition and Tactical Missiles c/	--	--	--	--	--	--
Selected Support Equipment	4,409.0	5,654.2	4,973.1 -12.0%	4,354.1 -23.0%	5,948.9	3,742.5 -37.1%
Air Force						
Spare Parts	4,174.7	6,980.1	4,235.4 -39.3%	3,680.4 -47.3%	5,204.3	3,458.8 -33.5%
Ammunition and Tactical Missiles d/	2,723.3	4,748.3	3,695.5 -22.0%	2,758.4 -41.9%	3,367.3	2,557.7 -24.0%
Selected Support Equipment c/	--	--	--	--	--	--

a. 1986 column of the fiscal year 1988 budget Procurement Programs (P-1) exhibit.
b. 1987 column of the fiscal year 1988 budget Procurement Programs (P-1) exhibit.
c. CBO was not able to determine what categories Dr. Korb included in his data. Therefore, CBO could not provide comparable numbers.
d. These data include the AMRAAM missile and the Ground Launched Cruise Missile. These programs do not appear to be included in Dr. Korb's data.

Senator LEVIN. We've been told by the Secretary of Defense that accelerating the purchase of two aircraft carriers is going to save the Navy some money.

We haven't been told about any change in strategy which would require us to begin the funding of these carriers now instead of in the nineties, as DOD projected just a few months ago.

Can you tell us whether or not you've looked at the alleged savings, and if so, what those savings are by beginning now instead of in the nineties? Are they real savings, or just the dollars will be cheaper because of inflation in the nineties?

Dr. PENNER. We have not looked at the issue, sir.

Senator LEVIN. Would you take a look at that and tell us what savings we can predict? And we might as well get you into a few hot issues before you leave here. Tell us what savings the Navy is projecting if we begin the funding of those now instead of in the nineties, as DOD planned just a few months ago, and whether these savings are real savings, or just the inflation factor.

Dr. PENNER. Could we work with your staff to see how we could be most helpful on that?

[The information follows:]

The Navy has estimated that it can save about $3 billion by buying two aircraft carriers under a multiyear strategy which would authorize both ships at the same time: one in fiscal year 1990 and one in fiscal year 1993. In comparison, the single-ship strategy, incorporated in the Extended Planning Annex (EPA) of the fiscal year 1987 budget, would authorize only one ship at a time: one in fiscal year 1994 and one in fiscal year 1996. These savings assume a mix of economic assumptions, acquisition strategies, and ships. The funds allocated for these carriers in the Navy's EPA are shown in Table 1.

TABLE 1.—CARRIER COSTS IN THE 1987 PLAN

[By fiscal year, in millions of then year dollars]

	1992	1993	1994	1995	1996	Total
CVN-74	588.8	735.7	3,497.0	---	---	4,821.5
CVN-75	---	288.0	600.0	713.7	3,579.3	5,181.0

These carriers would not be copies of the CVN-72 and CVN-73, but would contain upgraded state-of-the-art systems not available in earlier carriers. These upgrades would contribute to the higher costs.

In the fiscal year 1988 budget, the Navy proposes authorization for two carriers earlier than originally planned, not because of any change in the threat. Rather the Navy proposes this authorization under a multiyear strategy to approximate more closely a heel-to-toe production line at the Newport News shipyard. This strategy would achieve some savings by avoiding the reduction of the shipyard work force at an annual cost estimated by the Navy at 60,000 or $250 million. Furthermore, these carriers would not contain any upgrades that were assumed in the 1987 plan. The cost of the two carriers under this new acquisition strategy is given in Table 2.

TABLE 2.—CARRIER COSTS IN THE 1988 PLAN

[By fiscal year, in millions of then year dollars]

	1988	1989	1990	1991	1992	1993	Total
CVN-74	644	597	2,082	---	---	---	3,323
CVN-75	---	200	206	696	202	2,339	3,643

The savings obtained by subtracting the total values of the two tables is $3.037 billion. When the effects of inflation are taken out, the difference is $1.76 billion in 1983 dollars. (The Navy chose to do their constant dollar analysis in 1983 dollars so they could do comparisons with the costs of CVN-72 and CVN-73.) This figure, however, still compares different ships using different acquisition strategies. When you compare the same ships under a multiyear strategy, the savings are reduced to $755 million in 1983 dollars. This appears to be the effect of the costs associated with the drawdown of the work force at Newport News over a three-year period. CBO could not verify the validity of the Navy's data regarding the work force and, therefore, used the Navy's estimates.

The real savings are those that consider the acquisition of the same ships using the multiyear strategy with the effects of inflation factored out. In 1988 dollars, this is less than $900 million.

Senator LEVIN. Sure. Also, could you give us some estimates on stretch-out costs for the 381 aircraft that the Navy is deferring compared to its plans last year? Would you do that analysis for us?

Dr. PENNER. We are looking at that right now; yes, sir.

[This information follows:]

At the request of this committee, CBO is examining the Navy's current plan for aircraft procurement. This analysis will include an assessment of the costs associated with stretching out the procurement of certain aircraft over a number of years. The analysis will be provided to the committee as soon as it is available.

Senator LEVIN. Let me slip in a quick question, if I can. What is an efficient production rate? Can you give me a 10-second answer on that? Do that for the record. If you would tell us what your definition of what an efficient production rate is for the record, so I don't——

Dr. PENNER. Economists can't do anything in 10 seconds.

Senator **Exon**. If you have the answer, go ahead and give it, because I'm very interested.

Dr. **Penner**. Let's work on it for the record.

[The information follows:]

DOD has defined the minimum economical production rate as that rate "where further reduction in quantity incurs an inordinate increase in unit cost with an unacceptable return on investment." CBO generally accepts this definition, but notes that it is difficult to measure in practice, since investment is made jointly by DOD, the prime contractor, and numerous suppliers and subcontractors.

Senator **Exon**. I thought that would be your answer. I didn't think I was risking my time.

Dr. Penner, I don't believe that my opening remarks were recorded this morning. I just want to say again for the record, that I thank you for all of your consideration, and for the tremendous job that you've done in your position.

We're going to miss you very much, and all the other things that I said then that you know; you've been an outstanding public servant, and I thank you for it.

Dr. **Penner**. I thank you, sir.

Senator **Exon**. Let me follow up on what Senator Levin was getting into on this budget proposition, because I happen to feel, as I said in my earlier remark, that we have a tremendous challenge here in the authorizing committee on national defense.

Earlier, I believe that you testified that as a percentage of GNP, the deficit was heading in the right direction. I believe you used the figures in your testimony of 1986, the total deficit for GNP was 5.3 percent, and if we went forward on this glidepath that you've assumed, it would drop to 1.4 percent of GNP in 1992.

Did I hear you correctly? Is that right?

Dr. **Penner**. That is correct, sir; yes.

Senator **Exon**. Now, those calculations, do they assume the sale of assets of the United States?

Dr. **Penner**. No, sir, except perhaps in a very minor way, where that's done as a regular matter of course. But not in any major way, except those sales that have already been made. In 1987 there were a lot of asset sales—$7 billion.

Senator **Exon**. OK, and what deficit figure does that 1.4 percent of GNP represent compared with the current mandated deficit under Gramm-Rudman of I believe $108 billion for fiscal 1987.

Where would that 1.4 percent in 1992 be as compared to the 1.7 deficit mandated by Gramm-Rudman?

Dr. **Penner**. I'm sorry, sir, I didn't quite understand that.

Senator **Exon**. All right. You said, did you not, that the percent of the deficit to GNP is 5.3 percent?

Dr. **Penner**. That's correct, yes sir.

Oh, I see, you're asking what the 108 is as a percent of GNP?

Senator **Exon**. Yes. To ask it in another way, if your projections come out here, what will the deficit be in fiscal 1992? What is that 1.4 percent?

Dr. **Penner**. In 1992, the absolute level of the deficit would be $85 billion. By 1992, Gramm-Rudman, of course, would no longer be relevant, since it requires a balanced budget in 1991. For that year, under current policy, we project a deficit of $109 billion.

This means that somehow outlays and revenues would have to be brought together by $109 billion.

Senator EXON. So what you're saying, so that I understand it, is that if we follow the dictates of Gramm-Rudman, and after Gramm-Rudman is over and no longer the law of the land, we would be back up to $109 billion in 1992; is that what you're saying?

Dr. PENNER. No, sir, you can't really look at it that way. If, in fact, we actually achieve a balanced budget in 1991, we would probably be on a policy path that would produce a pretty handsome surplus in 1992, if the economy continued to grow.

Senator EXON. What is the relevancy of your statement that in 1992 the deficit would be 1.4 percent of GNP?

Dr. PENNER. That is just if you did nothing right now, from now until then. And I'm defining nothing as having a constant real defense level, a constant real level for the civilian discretionary programs, and keeping the tax laws and entitlement laws just the way they are today.

Senator EXON. Dollarwise, absolutely no growth for inflation or anything else?

Dr. PENNER. Inflation growth, yes.

Senator EXON. Inflation growth, and no real growth?

Dr. PENNER. That's right.

Senator EXON. OK, well thank you for that.

Chairman NUNN. Could I ask one question? What does this assume about Social Security? Does that assume Social Security starts building up a surplus, and that surplus applies against the overall deficit?

Dr. PENNER. Yes, sir. It's a very substantial surplus. I think by the end of the period, if I remember correctly, that amounts to about $75 billion.

Chairman NUNN. Senator Exon, would you yield just a second?

Senator EXON. Sure. I want to get into this.

Chairman NUNN. Doesn't that also assume that that Social Security surplus which has got to be available is going to be in real trouble at some point in the future?

Dr. PENNER. That's correct.

Chairman NUNN. Basically, this set of assumptions means that we're utilizing Social Security as an offset in the deficit, and thereby not accumulating those surplus funds, does it not?

Dr. PENNER. The funds are being accumulated in the trust fund, and will be there for use in the early 21st century when they'll really be needed.

I guess I would prefer to put your remarks in the whole context of economic growth. I mean, we will face, or our descendants will face, an enormous problem caring for what will be a huge elderly population in the time around, let's say, 2020.

Because of that, if we have concern and compassion for our descendants, we should be very concerned about our potential for economic growth. Obviously, the more we grow between now and then, the less a burden it will be to maintain that huge retired population that was born in the baby boom of the 1940s and 1950s.

According to CBO's analysis, one of the very best things we could do for economic growth would be to reduce this budget deficit.

Right at this moment, the sum of Social Security and the rest of the budget is absorbing a huge amount of savings—some of it from the United States and a lot of it now from international capital markets. We've got to pay that back in the future, somehow or other.

Chairman **Nunn**. But the fact that you're showing this as an offset of the deficit does not mean that the money is being used in that way, it just means that it's showing that in the macro sense and the money is still in that fund, right?

Dr. **Penner**. Yes. The money is still in that fund.

Chairman **Nunn**. But if you were to separate Social Security funds and not have it part of the unified budget, then your deficit numbers would look a lot different, would they not, in 1992?

Dr. **Penner**. From a very technical point of view, we have now moved Social Security off-budget. We like to look at the two together as economists, because we like to add up the saving on Social Security on the one hand with the dis-saving on the other.

I suppose one thing that reveals—which I think you're suggesting—is that the non-Social Security part of the budget is really very, very far out of whack. It could be argued—I'm not even sure I'd like to argue this myself—but it could be argued that we should balance the non-Social Security part of the budget and run an overall Government surplus, roughly equivalent to what is now accumulating in the trust funds. That amount would be sort of an addition to national capital formation; that is a very, very rough approximation. This accumulation would help to produce the size of economy that would be necessary to fund the great growth in the elderly population that this country will experience from about 2010 through 2035.

Chairman **Nunn**. Thank you.

Senator **Exon**. Thank you, Mr. Chairman. That was a good question.

Let me delve into this just a little bit further, so I can best understand it.

Also, in the projection of figures that you worked up here, you have assumed, have you not, that other trust funds such as the trust fund that we have over in the FAA, with regard to the airport trust fund, which has been carried forward now for a number of years, I think right now we have somewhere between $5 and $8 billion in the trust fund, that—it was a tax supposedly to improve airports and improve safety.

You also have assumed in these calculations that that trust fund would continue to increase, would be spent, or would be frozen at the existing levels?

Dr. **Penner**. The last that you mention; we assume it would be frozen. If my memory is correct, the revenues of that fund are authorized on a temporary basis. We assume that they are re-authorized over time at current levels so the spending would remain constant in real terms.

Senator **Exon**. And during these years, looking into the future, I don't think anybody can tell you where we're going to be in 1992, but it only gives us a guide. Generally speaking, what did you use as the GNP growth each and every year? Two percent, 3 percent, 5 percent?

Dr. PENNER. Page 6 of my statement shows CBO's assumption through time. You can see that early on it's about 3 percent, and then it gradually slows to 2.5 percent by 1992. It's at that point that we project that the unemployment rate will have been lowered to about 6 percent. Many economists would estimate—again, a controversial issue—that that's the level at which labor markets start to get tight, and wage acceleration begins.

Senator EXON. But in these next 5 years, with no growth in the defense budget, and no growth in any part of the budget really, you are predicting no recession?

Dr. PENNER. As I said, we explicitly predict no recession through the end of 1988. After 1988, we really get more mechanical in our projections, and there could be mild recessions offset by more than average growth during recovery periods. The rates of growth we've used for the 1989-1992 period have some reference to average historical experience, and that average experience does have recessions and booms in its.

There's no provision for a really serious recession, however. In our full annual report, we do analyze the effects of a serious recession of the 1974-1975 magnitude, which was the worst recession since World War II. In that instance, the deficit rose to $266 billion at its height. Even that's an improvement, however, when we did the same thing a couple of years ago, the deficit got up to $425 billion. There's no way you can get it that high today. So we have made considerable improvements. But still, $266 billion would be just a horror.

Senator EXON. I would have thought that the trade deficit would have had to be part of this. What are you forecasting for the trade deficit for these out-years?

Dr. PENNER. We depend very heavily in both the short-run forecast and the long-run projections on the reduction of the trade deficit. That, in my judgment, has to occur for the forecast to be viable. If it does not occur, the implication is that we would have to continue to borrow heavily from abroad, and, frankly, I can't believe that foreigners would be willing to lend us the amount of money that would be implied by that scenario.

Senator EXON. And if they didn't, although we break every economic law it seems like every 6 weeks, but if the foreigners did pull out their money that they're lending us now, that would very likely drive up interest rates rather dramatically and change the whole picture of your scenario?

Dr. PENNER. It would be a very bad scene. In the first instance, the value of the dollar would fall even further and more rapidly than it has recently. That would impose inflationary pressures, and, as you suggest, it would raise interest rates.

I also suspect that, faced with this kind of scenario, the Federal Reserve would feel a need to defend the dollar and would be forced into raising interest rates even further than would be implied by depriving us of that inflow of saving.

Putting it another way, we have become very dependent on this inflow of savings from international capital markets. It is the single most important factor, in my judgment, that allows us to live pretty high on the hog here, faced with this kind of budget deficit.

We're living very well on borrowed money, and we know that's possible for awhile, but not forever.

Senator EXON. Dr. Penner, of all these sales reports that we hear from time to time, Sears Roebuck, Penney's, and you hear all these people, sales up or sales down, do you have any figures offhand as to what percentage increase the sales from those major retailers in the United States amount to as far as foreign goods flowing through their cash registers?

I assume that it's going up rather dramatically. I would guess that 90 percent of the cash registers that went through Sears Roebuck were American-produced goods 10 or 15 years ago. I don't know what it is today, but I suspect it's somewhere down in the 50 to 60 percent range.

Do you have any factural figures on what percentage of those sales from our retailers are jingling through there on the basis of more and more imports of cheap but high quality foreign goods?

Dr. PENNER. I don't, precisely, but I can give you a general outline of what's been happening: the United States is on a tremendous consumption binge. We are consuming in this country much more than we're producing, the difference being the trade deficit.

And we can only continue that course because the international capital markets are willing to finance that trade deficit.

That trade deficit has caused an enormous number of adjustment problems, whether you're talking about your constituent farmers, or Midwest manufacturing, or whatever you want to look at.

The adjustment problems have been severe. You may find it hard to believe this next statement, but believe me, given the budget deficit, we're better off having had that infusion of foreign capital than we would have been without it. Without it, our budget deficit not only would have raised interest rates very much more than it did, it would have taken a much larger share of domestic capital formation.

I think a good deal of it has come out of domestic capital formation. One of my favorite charts which no one else can seem to understand in our report looks at these flows—I guess you don't have it there?

Senator EXON. I think I do have it.

Dr. PENNER. It's page 103, I'm not really sure I should try to go through this in great detail.

Senator EXON. I have one in my office.

Dr. PENNER. The basic pattern shown in the chart is that the major change in our savings flows over recent decades comes in the Federal deficit, which is shown in column 3. It shot up to 4.1 percent of the GNP in the 1980s.

That has necessitated, as shown in the last column, a real fall in the level of net private investment. But as shown in the second to last column, it has also attracted a big amount of capital from abroad.

So the fall in domestic investment hasn't had to be nearly as big——

Senator EXON. It's been offset?

Dr. PENNER. It's been offset. It hasn't had to be nearly as big as the fall in our savings. And if it had had to be, we'd be even in more trouble.

Although, as our whole Chapter 3 on economic growth tries to indicate, with net investment at current levels, we think we have a lot to worry about by this I mean our productivity performance in the 1980s. I don't want to ascribe all of the problem to investment. We don't understand all of the problem affecting productivity growth, but it's very low. Relative to my own expectations, of a few years ago, I find it very disappointing.

And you know, ultimately we just depend so crucially on productivity growth to improve our standard of living and to deal with problems such as the size of the Social Security Trust Fund in the next century—an issue that the Chairman raised a few minutes ago.

Senator EXON. It seems to me, Dr. Penner, that we need to know more about all this, I know you are personally short of time. I'm also thinking or my responsibilities over on the Budget Committee.

Dr. PENNER. Well, I'm leaving 220 people behind, sir.

Senator EXON. OK. Well, could one of those 220 people possibly get for the record something that I think we should at least take a look at historically, and that is, how much of these significant figures with regard to retail sales from the major retailers, are sales of foreign goods? I mean, what was it during a more normal time? What was it 5 years ago? What is it today? And where is it likely to go in the future?

I'm very fearful that there has been a dramatic increase, for example, in K-Mart's total volume sales from foreign goods. And if that is going to continue in the future, then it's going to get us deeper into this hole that you so adequately point out, it seems to me, in your testimony today.

Are figures like that available?

Dr. PENNER. I do not think they are, sir. I'll look into it.

Senator EXON. Well, we do have it, do we not, with regard to automobiles?

Dr. PENNER. Yes, sir.

[The information requested follows:]

Data expressing the value of foreign goods as a percentage of retail sales are not available. We have, however, data that presents imports as a percentage of GNP. This percentage has risen in real terms from 10.4 percent in 1980 to 14.2 percent in 1986.

For automobiles, the number of imports as a percentage of the total number of automobile sales has increased from 26.7 percent in 1980 to 27.9 percent in 1986.

Senator EXON. I think if we would total up our automobile imports, what percentage that is of the total sales, which seems to be going up, what's going on in the stores.

I think it's a significant factor. One of the retailers that I have not mentioned today told me he would be surprised at the percentage of foreign goods that go through our cash registers.

And he said, it's good for the short term. It's good for us, it's good for volume, and we make some money on it. But he said, I do worry about it from the standpoint of, if it grows much further, what it's going to do to domestic production in the United States.

So I think it should be a better understood factor as part of our projection of the future. Do you agree?

Dr. PENNER. Yes, sir. And I think the basic point you're making is an important one: what's disturbing is consumption.

I wouldn't be worried at all about our big borrowing from abroad if we were using it to increase our investment. That's what we did in the 19th century when we financed railroads, canals, and so forth, largely by drawing on international capital markets; no problem. Because we were building the base to pay it back in the future.

What I really fear today is that we're borrowing all this money and we're not building any base to pay it back in the future. Just one manifestation of that is the point you mention. While I don't have the exact figures, I know with certainty that you're correct, that the proportion of sales of foreign goods in retail has soared enormously.

But perhaps more disturbing is the sum of consumption, whether it's domestic goods or foreign goods. Or the other side of that is the lack of investment. You saw the numbers on page 103, how much net investment has fallen.

Senator **Exon**. Well, my time is up. But I guess it's also safe to assume from what we've been saying here that if we ever are forced or feel it necessary to increase taxes, it might be a good idea to look at some kind of a consumptive tax as a means of slowing that down. Is that true?

Dr. **Penner**. I think that very definitely is a political decision.

Senator **Exon**. What about an economic decision?

Dr. **Penner**. From an economic point of view, of course, consumption taxation is more favorable to investment and savings than is income taxation—depending on what kind of tax you're talking about. For example, under GATT rules, some, like value-added taxes, can be designed to be more favorable to trade than can income taxes.

So I think those are the two most important economic facts. And I would say the first really is much more important than the second.

Senator **Exon**. Thank you, Dr. Penner, and thank you for coming here this morning.

Dr. **Penner**. Thank you.

Chairman **Nunn**. Dr. Penner, just a couple of quick questions and then we'll let you go and thank you for your very helpful testimony.

Senator Exon asked if you all were forecasting a recession, and you answered no.

My question is: Has CBO, since it existed, ever forecast a recession?

Dr. **Penner**. Once, sir.

Chairman **Nunn**. When was that?

Dr. **Penner**. We were wrong. I think it was—1979. I'm not sure. I could check that for you. It wasn't while I was there. We have never forecast a recession while I have been at CBO, and there hasn't been one, either.

Chairman **Nunn**. Has the Office of Management and Budget, which has existed a lot longer than CBO, ever forecast a recession under any president?

Dr. **Penner**. Not very explicitly. In early 1981, they were talking about a small recession at the end of 1981. It wasn't big enough to show up in any of the numbers. And then of course what happened was the huge recession we got in 1982. But the administration did expect some downturn, I think, in the third quarter or so.

Chairman NUNN. We should not sit around with baited breath waiting on someone at either the Congressional Budget Office or the administration to forecast a recession, should we?

Dr. PENNER. One has to be very courageous to do that. The Gramm-Rudman law, of course, requires CBO to announce it to you if a recession looks imminent.

I had some grandiose notions about how we might do that, but it's very hard. More seriously, it's very hard to forecast turning points either way in the economy.

Chairman NUNN. Then you also worry about it becoming a self-fulfilling prophecy, do you not?

Dr. PENNER. There would be that danger, if people really believed our forecast with great certainty. But I don't think we have to worry about that.

Chairman NUNN. The administration would worry about that. If the President sent over an official budget forecasting a recession, would not that cause considerable concern?

Dr. PENNER. It sure would.

Chairman NUNN. The other question I have——

Senator EXON. If I could make a comment on that, I would just say, Mr. Chairman, that if you take a look at the stock market today, you know there never could be a recession. I think they're making that very, very clear.

I don't know what that group talked about in 1929, but I suspect that they were not then talking about a recession then, either.

It's pretty risky to entwine our national defense around those numbers.

Chairman NUNN. You hear people say not to worry about all this money we're borrowing from abroad, because the money has nowhere else to go. I hear that argument made. Where else are they going to put it?

America is secure and has the best investment market. America has a lower tax rate and a low inflation rate. The price-to-earnings ratio on our stock exchange is better than most. How do you respond to that? Even if we were to see interest rates go up and the dollar going down, where would this money go?

Dr. PENNER. I think the basic point, sir, is that it went somewhere else before. I mean, this is a fairly recent phenomenon. And while the United States is an excellent place to invest, for many of the reasons that you cite, I don't think any of those advantages has increased so much over the last 5 years so as to explain this huge turnaround in international capital flows that we've experienced.

I slip occasionally into saying these flows are foreign money. More accurately, it is international money. Much of it is American; it's held by multinational corporations. In any case, those corporations have, in the past, been big investors abroad, drawing on American capital markets to do so, so they could return to that. They can invest in Germany and France and Switzerland and all over the place, including the less developed world.

So I think it is a matter of rates of return and expectations for the future, adjusted for the degree of confidence they have in our policies in the future. I think part of the reason the international investors have been willing to lend is because they've had a basic confidence that we would do something about the budget deficit in the longer run—and we have made some progress over the last 2 years.

But I think they're expecting a lot more and, indeed, will demand a lot more before they continue to do this for a good number of years to come.

Chairman **NUNN**. Thank you, Dr. Penner, for your testimony, for your service to the Congress. And good luck in your future career.

Dr. **PENNER**. Thank you very much, Mr. Chairman.

[Questions for the hearing record, with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN GLENN

Senator **GLENN**. It used to be that the President's budget was a statement of how much aggregate demand he wanted the government to have in the economy. That would go up or down depending on where the President thought we stood in the business cycle. With the passage of Gramm-Rudman-Hollings, however, we have handed fiscal policy over to a formula, and what we used to call debt management we now call fiscal policy. I have a number of questions here:

(a) Does fiscal policy, in the traditional sense, have any part to play in the Administration's present budget proposals?

Dr. **PENNER**. One difficulty in discussing this area is that the term "fiscal policy" may have taken on somewhat different meanings at different times. For instance, from the mid-1960s to the mid-1970s, fiscal policy tended to mean demand management. But more recently, fiscal policy has tended to be construed more broadly to mean the use of government expenditures and the tax structure to achieve broad macroeconomic goals. I would agree that the Administration has tended to downplay the use of fiscal policy to influence aggregate demand, although some people would argue that the tax cuts of 1981 helped to stimulate the current economic recovery that began late in 1982. In any event, the Administration's fiscal policy has stressed reducing taxes—especially marginal tax rates—and reducing government spending. It is not stressing demand management.

Senator **GLENN**. (b) Because we need such a long lead time with the budget, does it make sense to presume what our fiscal policy needs are? Does it make better sense simply to let the budget aggregates be governed by other goals, such as deficit reduction?

Dr. **PENNER**. Timing is one of the reasons—but not the only reason—that many people question the efficacy of countercyclical fiscal policy. When a recession is about to occur, it takes considerable time to recognize that fact, to legislate a policy, to implement it, and finally for it to have an effect. In addition, more and more economists are questioning whether a fiscal stimulus has much effect on aggregate demand. Some believe that much of the effect gets "crowded out" by reductions in other kinds of spending such as housing construction or net exports. Others believe that such policies tend to be ineffective because they are anticipated and offset by market participants. While economists hold somewhat different views about the efficacy of using fiscal policy for demand management, there is general agreement that fiscal policy should not be used in an attempt to "fine tune" the economy.

Senator **GLENN**. (c) Do you believe that the economy can stand 5 years of restrictive fiscal policy, which is what Gramm-Rudman-Hollings spells out for us?

Dr. **PENNER**. I would give a qualified "yes" to that question. The CBO economic forecast, which pertains to calendar years 1987 and 1988, assumes that the deficit requirements of the Balanced Budget Act will be met. We believe that there will be offsetting factors, such as the decline in interest rates that has already occurred and some improvement in the real trade balance. We point out in our report, however, that the restrictive shift in fiscal policy is one of the main sources of uncertainty of the forecast.

The longer-term economic projections are not based on any particular assumptions about fiscal policy, nor do they represent a forecast of what will actually occur—we simply cannot predict the economy that far in advance. Because of the implications of lower interest rates and the possibility of improvements in our trade balance, however, the deficit targets of the Balanced Budget Act do not seem necessarily to be inconsistent with moderate growth.

Senator **Glenn**. Does a dollar spent in defense have the same effect as a dollar spent by government in the civilian sector? Do economists use different multipliers here?

Dr. **Penner**. As a general rule, most, but not all, economists believe that government spending for defense has about the same short-run stimulative effect on aggregate demand as spending on nondefense goods and services. Changes in defense purchases, however, may have a somewhat greater effect on aggregate demand than changes in government transfer programs such as Social Security outlays. This is because transfer payments—in contrast with outlays for goods and services—do not directly affect demand and production. The actual stimulus occurs as the recipients spend some portion of the increase in transfer payments.

Senator **Glenn**. You speak on page 2 of your statement of federal outlays falling as a percent of GNP, and perhaps this is a good thing. However, what about all government outlays, including state and local outlays? Many states and local governments will have to increase their budgets, to cope with the loss of federal grants. Some intend to pocket the "windfall" that comes from pegging the tax system to the federal tax system. Your views, please, on the best level of all government spending in our economy generally.

Dr. **Penner**. Fundamentally, the choice about the appropriate size and scope of government is and should be a political matter. I use the term "political" here in its best sense—namely, as an expression of values. How important is it to have a much larger defense, catastrophic health insurance, or a well-cared-for national park system? Essentially there are issues involving values.

On a much less fundamental level, economists can point out that as a general rule the taxes that are needed to support any particular scope of government tend to have real costs by producing a certain amount of distortion and by reducing incentives to work, and to save and invest. In addition, there are substantial differences in the implications of various types of government spending. For instance, government support for basic research, education, or a road could contribute as much or more to economic growth than a private investment. Obviously, there are other kinds of spending, such as for medical care for the elderly, that do not contribute to growth but can be important for other reasons.

Questions Submitted by Senator John Warner

Senator **Warner**. Dr. Penner, in your statement, you discuss growth in operating and support costs in the defense budget. In preparing CBO baseline for defense, were assumptions included which permitted growth in these operating and support cost? If no, why not?

Would you please provide for the record three five-year options for defense—2 percent, 1 percent, and 0 percent real growth in budget authority—which include an assumption of 3 percent real growth in operating and support cost?

Please also provide the same three budget authority options with an assumption of 0.5 percent real growth in operating and support costs.

Dr. **Penner**. The CBO baseline for defense assumes that the budget authority in each account will be increased enough to keep pace with inflation. No special allowances for real growth in any particular area of the defense budget were made. This approach is also used in the baseline for nondefense discretionary programs. We employ this approach because it is the simplest and most easily understood approach that we know.

The attached table show CBO estimates for six growth paths with specific assumptions governing the rate of growth in funds for operation and support of the military forces. A path of no real growth in total budget authority for defense, while allowing for growth of 3 percent in operation and support funding would result in outlays of $293.2 billion, an amount that is $2.7 billion greater than the CBO baseline outlay estimate.

SIX PROJECTIONS ALLOWING FOR REAL GROWTH IN OPERATIONS AND SUPPORT AND VARYING GROWTH FOR NATIONAL DEFENSE BUDGET AUTHORITY

(By fiscal year, in billions of dollars)

	1988	1989	1990	1991	1992
Three Options Providing 3 Percent Real Growth in Operations and Support Accounts					
0 Percent Real Growth Overall					
Budget Authority	302.7	316.3	330.6	345.8	361.7
Outlays	293.2	308.1	322.9	338.9	354.1
1 Percent Real Growth Overall					
Budget Authority	305.7	322.6	340.6	359.9	380.1
Outlays	294.0	310.8	328.3	347.5	366.4
2 Percent Real Growth Overall					
Budget Authority	308.8	329.1	350.9	374.3	399.3
Outlays	294.8	313.6	333.8	356.3	379.1
Three Options Providing 0.5 Percent Real Growth in Operations and Support Accounts					
0 Percent Real Growth Overall					
Budget Authority	302.7	316.3	330.6	345.8	361.7
Outlays	290.9	304.2	318.0	333.3	348.0
1 Percent Real Growth Overall					
Budget Authority	305.7	322.6	340.6	359.9	380.1
Outlays	291.7	306.9	323.4	341.9	360.3
2 Percent Real Growth Overall					
Budget Authority	308.8	329.1	350.9	374.3	399.3
Outlays	292.5	309.7	328.9	350.8	373.0

Chairman NUNN. We will have a hearing with Secretary Shultz this afternoon at 3 o'clock. That will be Senate Russell 253.

[Whereupon, at 11:47 a.m., the committee adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEARS 1988 AND 1989

WEDNESDAY, FEBRUARY 4, 1987

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

MACRO-BUDGET ISSUES

The committee met in open session, pursuant to notice, at 2 p.m., in room SD-G-50, Dirksen Senate Office Building, Senator Sam Nunn (chairman) presiding.

Present: Senators Nunn, Levin, Bingaman, Gore, Wirth, Shelby, Warner, Thurmond, Humphrey, Cohen, Quayle, and McCain.

Staff present: Arnold L. Punaro, staff director; Carl M. Smith, staff director for the minority; Romie L. Brownlee, deputy minority staff director; Patrick A. Tucker, minority counsel; Robert E. Bayer, Robert G. Bell, Robert F. Bott, John H. Hamre, George K. Johnson, Jr., Ronald P. Kelly, James R. Locher III, David S. Lyles, Michael J. McCord, Frederick F.Y. Pang; Gordon G. Riggle, and Daniel J. Wildfong, professional staff members; Russell C. Miller, research assistant; Pamela G. Powell, staff assistant.

Also present: Jeffrey B. Subko, assistant to Senator Exon; Charles C. Smith, assistant to Senator Dixon; Milton D. Beach, assistant to Senator Glenn; Leon Fuerth, assistant to Senator Gore; Bob Hickmott, assistant to Senator Wirth; Terrence Lynch, assistant to Senator Shelby, James M. Bodner, assistant to Senator Cohen; Christopher Mellon, assistant to Senator Cohen; Henry D. Sokolski, assistant to Senator Quayle; Mark J. Albrecht, assistant to Senator Wilson; Alan Ptak, assistant to Senator Gramm; and Lorne Cramer, assistant to Senator McCain.

OPENING STATEMENT BY SENATOR SAM NUNN, CHAIRMAN

Chairman NUNN. The committee meets this afternoon for the second of our hearings on the macro-budget issues related to the defense authorization request for fiscal years 1988 and 1989. These macro-budget hearings are designed to assist the committee in the preparation of our defense top line recommendations to the Senate Budget Committee as well as our later decisions on the authorization bill itself.

On behalf of the committee I extend a warm welcome to our three distinguished witnesses for today's hearings, the first, Secretary of the Army Jack Marsh. Mr. Secretary, I understand you are to be congratulated for recently passing the milestone of becoming the longest serving Secretary of the Army, and we congratulate you on that. We think you have done a splendid job.

Our second witness is Secretary of the Air Force Pete Aldridge, who is well known to this committee, having appeared a number of times in other capacities. Our third witness is Under Secretary of Navy Jim Goodrich, who is pinch hitting for Secretary Lehman.

I would like to inform the committee membership at the time this hearing was scheduled the Department indicated that Secretary Lehman was available and would appear with the other Secretaries of the military departments. However, Secretary Lehman, who is overseas, had a longstanding commitment to visit a deployed ship and the timing of that visit changed within the last several days due to the ship's schedule. Certainly this is understandable from the committee point of view, and we welcome, particularly in the light of last year's defense reorganization bill, the honored military principle of having his No. 2 step in.

Senator Warner and I wrote to each Secretary explaining the purpose of this hearing and outlining the subjects which the testimony could most usefully address. In particular, the Secretaries were asked not to present the traditional service posture statement with detailed programmatic and budgetary information which the committee will receive in other fashions and in our subcommittees.

Instead, they were asked to focus on the three new responsibilities assigned to them by the Goldwater-Nichols Department of Defense Reorganization Act of 1986. These responsibilities, are, first, the formulation of policies and programs by the Departments that are fully consistent with national security objectives and policies established by the President or the Secretary of Defense. Second, carrying out the functions of the departments so as to fulfill to the maximum extent practicable the current and future operational requirements of the Unified and Specified Combatant Commands. And the third responsibility is effective cooperation and coordination between their departments and other military departments and agencies of the Department of Defense to provide for more effective, efficient, and economic administration and to eliminate duplication.

These responsibilities reflect three key principles of defense management. First, defense policies and programs must be designed to directly and effectively support our military strategy. In this period of fiscal austerity, and I must add, Senator Warner, I have just met with some of our Budget Committee leadership and it is not a very encouraging picture that they face and that we are going to face on the floor. In this period of time there is no place for program proposals that do not fully conform with the priorities of our strategy. The second principle is that the administrative dimensions of the Department of Defense, which includes the military departments, exists to support the war-fighting commands. Proposals of the military departments must be measured by the yardstick of the operational requirements of the Combatant Commands.

The third principle of the defense management is unitive effort. The U.S. military establishment was integrated into a single executive department to provide a unified defense effort. Toward this end there must be effective cooperation and coordination among the military departments and defense agencies, and that is one of the reasons we wanted our Secretaries to come as a panel today.

We each welcome you here this afternoon. As Senator Warner and I stated in our letters, the committee expects your testimony to clearly relate the authorization request of your department to our national security objectives and policies, to identify operational requirements of the Combatant Commands that would not be fulfilled, and to explain cooperative efforts and programs, with other departments and agencies.

We recognize that the witnesses had short notice for this hearing, which represents a different approach from the traditional posture statements, and we know we are going through an evolution in moving in this direction as opposed to our traditional approach. However, several months ago our committee announced its intention to focus on the fundamental issues of national defense.

Moreover, the subjects on which the witnesses have been asked to testify are among the key responsibilities of the Secretaries of the military departments, and should be the focus on a day to day working and thinking basis.

Before the witnesses give their opening statements, Senator Warner, I would be delighted to hear from you.

Senator **Warner**. Thank you, Mr. Chairman. I think you have covered it very adequately.

Chairman **Nunn**. We do not have any particular order here.

Senator **Warner**. On this point I can help you, having been in this seat many times myself. We go by seniority of the service, and we hear from the Army first.

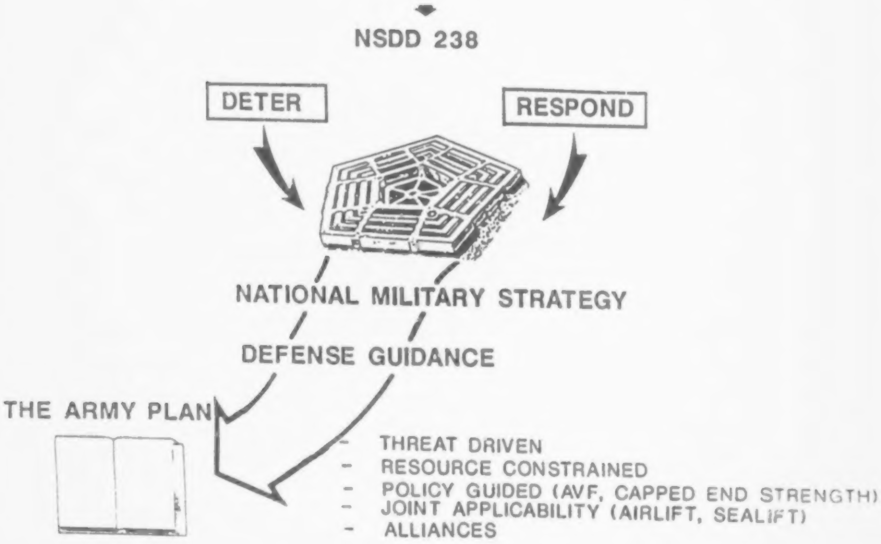
Chairman **Nunn**. Well, that is a good suggestion. We will hear from the Army.

STATEMENT OF HON. JOHN O. MARSH, JR., SECRETARY OF THE ARMY

Secretary **Marsh**. Thank you very much, Mr. Chairman. I certainly congratulate you as you assume the leadership of this very important committee, and to my good friend and fellow Virginian, Senator Warner, we certainly welcome you to the position of the ranking minority member of this committee.

If I could use some charts here, Senator, I would appreciate it. Let me say as we begin that if you look at this year in the Department of Defense there are three major legislative proposals that have been enacted into law. Any one of which would be a major initiative from the standpoint of implementation in the Departments.

NATIONAL SECURITY OBJECTIVES



NSDD 238

DETER

RESPOND

NATIONAL MILITARY STRATEGY

DEFENSE GUIDANCE

THE ARMY PLAN

- THREAT DRIVEN
- RESOURCE CONSTRAINED
- POLICY GUIDED (AVF, CAPPED END STRENGTH)
- JOINT APPLICABILITY (AIRLIFT, SEALIFT)
- ALLIANCES

They are: the Reorganization of the Department of Defense, second the implementation of the Acquisition Executive, and third, the restructure and reorganization of Special Operations Forces. I would say to you that each of these three has moved along quite well, and here today we will address principally the Defense Reorganization Act.

At this point in time under the new Defense Reorganization Act I would be remiss if I did not indicate to you certain areas where I would invite the committee to address as we go through the year. One of those, will be that you will find that the joint service requirement as currently written does pose some problems for the assignment of our officers and also for their promotion. I will be glad to try to respond to that later.

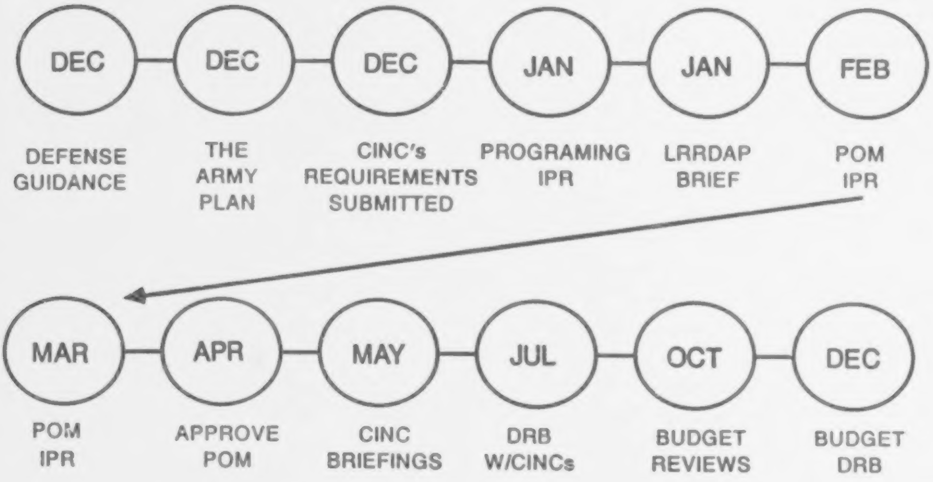
You asked me to address three particular areas. First, the role and responsibilities under the Defense Reorganization Act, as now defined relating to the Secretary of the Service, and as Secretary of the Army, those that relate to my responsibilities in supporting the national objectives of the Department of Defense and of our national military strategy.

Second, you asked me to focus on the commander in chiefs [CINCs], the combatant commanders of the Unified and Specified Commands. They are very important, and it is clearly apparent in the Defense Reorganization Act that great emphasis is placed on this dimension of our defense effort.

Finally, you asked me to speak in terms of relationships with other services and with the military from the standpoint of more effective operation and achieving efficiency. As you well know, and as has been testified to, it is through the national security objectives translated into NSDDs, National Security Decision Directive 238 prinicipally, that assigns us a mission down through the Department of Defense. The Department of the Army's missions are more abbreviated, of course, than the totality of those that are set out in NSDD 238. You say in broad terms they are to deter and also to respond. These are reflected in the national military strategy that finds its shape in the defense guidance. The defense guidance leads to the Army Plan which is produced on an annual basis.

I would say to you that the Army Plan, as you know, is threat-driven. It is resource constrained. It is policy guided, such as by the all-volunteer force, which is a legislated national policy. Indeed, the policy of a capped end strength in the Army at 781,000 has a significant impact on Army strategy. The plan is also based on jointness, because we rely on the Air Force and Navy for the air and sealift needed to deploy. Finally, it is alliance-oriented, and I refer principally here to NATO.

SECRETARY OF THE ARMY PROGRAMING ROLE


DEC
DEFENSE GUIDANCE
DEC
THE ARMY PLAN
DEC
CINC's REQUIREMENTS SUBMITTED
JAN
PROGRAMING IPR
JAN
LRRDAP BRIEF
FEB
POM IPR
MAR
POM IPR
APR
APPROVE POM
MAY
CINC BRIEFINGS
JUL
DRB W/CINCs
OCT
BUDGET REVIEWS
DEC
BUDGET DRB

I think if you look at the Department of Defense today you will see a greater role being played by the CINCs in the resource development process and the manner in which we employ them. You find the CINCs involved at the time of the Defense Guidance, which usually comes out in December. Copies of that Defense Guidance go to the CINCs and they make their inputs through the Joint Chiefs of Staff to the Secretary of Defense and they also make inputs to the Army Plan. The CINCs' response comes through what we call the integrated priority list, the IPL, and that lays out in the order of priority those needs that CINC has.

Today they come into the Army and are considered part of the Army Plan during the development of the Army programs here in

January, February, and March. During this period of time these priorities by the CINCs are represented in the programming stages in the Department of the Army by representatives from the CINCs commands. They work with our programmers to ensure that the CINC's views and programs are incorporated into the Army Plan.

That is, in part, what we call the annual POM, the Program Objective Memorandum, which was approved in April by the Chief of Staff of the Army and by myself. At this point in time the CINCs' needs would be considered and incorporated into the Army Plan. That being done, we would send out to the commands representatives from the Department of Army programming and budgeting offices who would explain to the CINCs precisely how their command had fared in the Army Program.

Now, you will generally find that what the CINC has requested is not fully satisfied or not at least to their satisfaction. After these briefings the CINCs prepare their evaluation of the Army Program. They then come back in July at the annual Defense Resources Board [DRB] meeting, the most significant deliberation body in the Department of Defense, and they make their presentations to the DRB.

I hope that you are beginning to see that these presentations take on considerable impact, and several years ago that did not occur. The CINCs come in now and make their presentations and they evaluate the Army Program as it applies to their command. After that, their presentations are considered in the Defense Resources Board, a series of deliberations that last for 2 to 3 weeks. After that, decisions are published and we produce what we call a CINC annex so that they know what the decision was. I should point out that you publish a CINC annex back here in April when you adopt the POM, so the CINC knows what he did or did not get.

So we come back in with the CINC annex update and show the decisions that occurred here in the summer process. Then follows the budget review, the final presentation of the budget as it goes to the Congress and thus the publication here of a third edition of the CINC annex. Now, for your information, are the things that the CINCs are interested in and are coded green, amber, and red. Greens are the things they get. Ambers are what they get part of. Reds are those things they are denied. If you desire I will get back into that and show you how many were green, how many were amber, and how many were red.

Chairman NUNN. Mr. Secretary, could you summarize how many places in that process these things have now had an input? You are saying in December and July?

Secretary MARSH. The CINCs had very significant input from the outset with the integrated priority list at the very beginning as we begin to work the Army Plan. They make their inputs into the Army Program right here. The CINCs have their people here in the early months of the year, actually here in the Pentagon working with us in preparation for the Army Program. So then the CINCs come in and are briefed and give our briefers in May their reactions to what we did on the Army Program. Then they come back in July and again make a most significant presentation to the entire Defense Resources Board, so those—this did not happen 5 or 6 years ago, but we see a greater emphasis in the Department, and there is greater emphasis obviously here in the Congress in the role of the CINCs.

U.S. Army Global Missions

Defeat a Warsaw Pact attack on NATO and maintain its territorial integrity and security.
Deny Soviet control of Persian Gulf oil.
Defend vital U.S. interests in the Pacific.
Support allies in Asia, Latin America and Africa.
Maintain with other services, a strategic reserve capable of responding to threats in the Western Hemisphere.
Respond to other threats to U.S. interests anywhere in the world.

Now, I am going to go through the Army missions. You know the six: to defeat Warsaw Pact; protect resources of the Persian Gulf; support our interests in the Pacific; support our allies in Asia, Africa, and Latin America; to have a reserve in the western hemisphere; and respond to other threats. Those are the Army missions that shape the Army's role in national strategy.

NATURE OF CONFLICT

LOW INTENSITY	CONVENTIONAL	NUCLEAR

FORCE STRUCTURE IS THREAT DRIVEN

As you know, warfare is changing, with a great emphasis on low intensity conflict, and because of modernization you see conventional conflict changing, and also there is a nuclear spectrum. In the last several years the threat has focused more on low intensity conflict, and out of that, as you are well aware, comes the need for Special Operations Forces and light divisions to respond to the problems that relate to terrorism, guerrilla warfare, and low intensity conflicts.

Three Pillars of Army Strategy

Forward deployed.
Rapid reinforcement.
Responsive force projection.

Now, the three pillars of the Army's strategy go back a number of years. These three pillars are, we are forward deployed, we must have rapid reinforcement, and we must be able to rapidly project our forces.

LEVERAGING THE FORCE

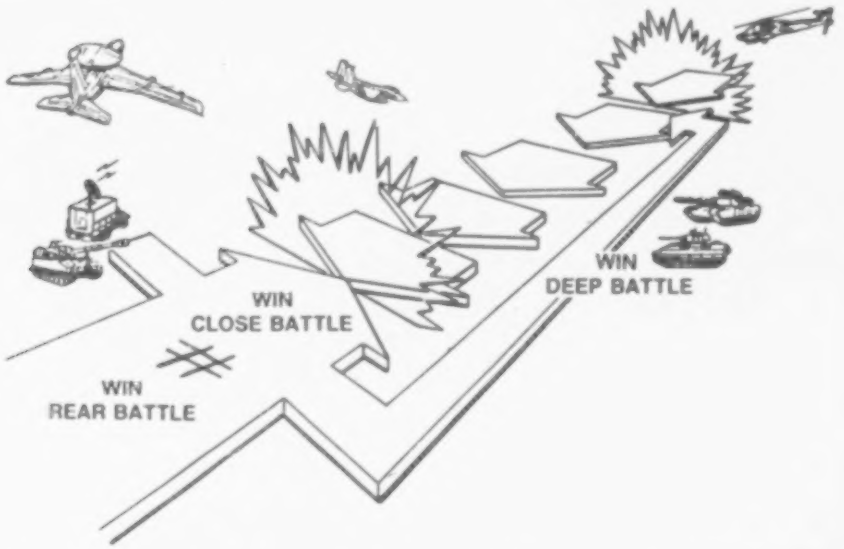
(THREAT ORIENTED, RESOURCE CONSTRAINED, AND POLICY DRIVEN)

- EVOLVING THREAT INFLUENCES
  - STRUCTURE
  - DOCTRINE
  - TACTICS
  - DEPLOYMENT
- ACTIVE END STRENGTH CAPPED AT 781,000
  - READINESS/TRAINING
  - SUSTAINMENT
  - MODERNIZATION
  - PEOPLE
- GREATER RELIANCE ON RESERVE COMPONENTS
  - STRENGTH
  - CS/CSS
  - AGR
  - MODERNIZATION
  - CAPSTONE/ROUNDOUT
  - OCONUS TRAINING

Those are the three sought after pillars of our strategy that we would like to fulfill. Now, what we are seeking to do in the Army to accomplish that strategy is to leverage the force, dealing with the Active force at a capped end strength of 781,000. That in itself raises certain other questions of strategy. The 781,000-member Active Army has pushed us now more toward the National Guard and the Army Reserve for combat support, combat service support, and to augment our combat capability so that today in the National Guard and Army Reserve there is one soldier for every soldier on active duty. In fact, by placing greater reliance on the Reserve components we hope that with a smaller active component force that we can accomplish more in our modernization programs. This is both a strategy and a tactic.

AIRLAND BATTLE TENETS

• INITIATIVE • DEPTH • AGILITY • SYNCHRONIZATION



As you are aware, the AirLand Battle concept seeks to achieve an edge based on technology, better tactics, joint operations, and modernization. Modernization brings into the inventory the M1 tanks and M2 Bradley and other vehicles of that kind, newer aircraft, the communications capabilities that are superior, and also better intelligence resources. To properly execute the AirLand Battle concept we rely on effective leadership from our noncommissioned officers and officers, and the very high quality soldiers which are enlisted today in the Active Army. Better than 90 percent of them are high school graduates and less than 4 percent are in the lower mental category IV. I would say to you that about two-thirds of them are from category I to IIIA.

Chairman NUNN. Could I ask a question here? When will you have the ability to implement in a satisfactory manner the AirLand Battle strategy?

Secretary MARSH. It would be hard to quantify it according to time. I would say to you, Senator, that on the modernization side we are at about one-third modernized. The introduction or full exploitation of AirLand Battle concept will depend on a fully modernized force. Although we have made significant progress toward it, I would not see it reach its full capabilities until some time in the early 1990s. I would say that the more modernization that we can have, the more quickly we can achieve that objective, but our achieving our objective is being slowed down because of affordability questions.

AIRLAND BATTLE DOCTRINE

- TECHNOLOGY
  - SMART MUNITIONS
- TACTICS
  - INITIATIVE
  - DEPTH
  - AGILITY
  - SYNCHRONIZATION
- JOINT OPERATIONS
  - TRAINING EXERCISES
  - AIR
  - SEA
- INTELLIGENCE
  - CEWI
  - JTFP
- LEADERSHIP
  - EDUCATION
  - EXPERIENCE
- QUALITY SOLDIERS
  - 90% HSDG
  - 4% CAT IV
- TRAINING
  - NTC
  - JRTC
- MODERNIZATION STRATEGY
  - CLOSE BATTLE (M-1, M2/3, LHX, AH-64, AAWS-M, ETC)
  - REAR BATTLE (UH-60, HEMTT, LUPS, ETC)
  - DEEP BATTLE (J-STARS, MLRS, A-TACMS, ETC)
  - COMMAND AND CONTROL (FAAD SYSTEMS, MSE, SINCGARS, ETC)

Chairman NUNN. Do you have any kind of chart that would show any one of the components of AirLand Battle in terms of surveillance, of acquisition of targets, of communication, how they flow together and when they will come into being and on what they depend in terms of funding?

Secretary MARSH. I could produce that for you.

[The information follows:]

Subject: AirLand Battle (ALB) Doctrine

1. Issue: N/A/

2. Facts.

a. Promulgated in 1982 as US Army's fundamental combat operations doctrine.

b. Termed "AirLand Battle" in recognition of inherently joint nature of modern warfare.

c. As articulated in Field Manual (FM) 100-5, *Operations*, the authoritative statement of our doctrine. Updated version of FM 100-5 published in May 1986 placed greater emphasis on operational art, low intensity conflict, and light division operations.

d. ALB doctrine exploits full potential of U.S. and allied forces by synchronizing all available combat means.

e. ALB doctrine is rooted in time-tested theories and principles yet forward looking and adaptable to changing technologies, threats and missions.

f. ALB views the battlefield, close, deep and rear, as one battle to ensure unity of effort and success in combat.

(1) Deep operation shape conditions in which future close operations will be conducted.

(2) Rear operations are designed to assure freedom of maneuver, continuity of operations, and uninterrupted service support.

(3) Close operations bear the ultimate burden of victory or defeat. The measure of success of deep and rear operations is their eventual impact on close operations.

g. ALB emphasizes use of conventional weapons yet clearly states guidelines for use of nuclear and chemical weapons.

h. ALB doctrine is adapted to correspond to agreed theater military guidelines, doctrine, procedures and operation plans where U.S. Army forces are deployed in allied or coalition operations.

i. Since 1983, the USAF has agreed to use ALB doctrine in conjunction with its Aerospace Operational Doctrine as a basis to conduct joint operations.

j. ALB doctrine will guide the U.S. Army to the 21st Century. Other futures concepts are being developed by TRADOC to address future needs.

3. Key Points To Be Stressed.

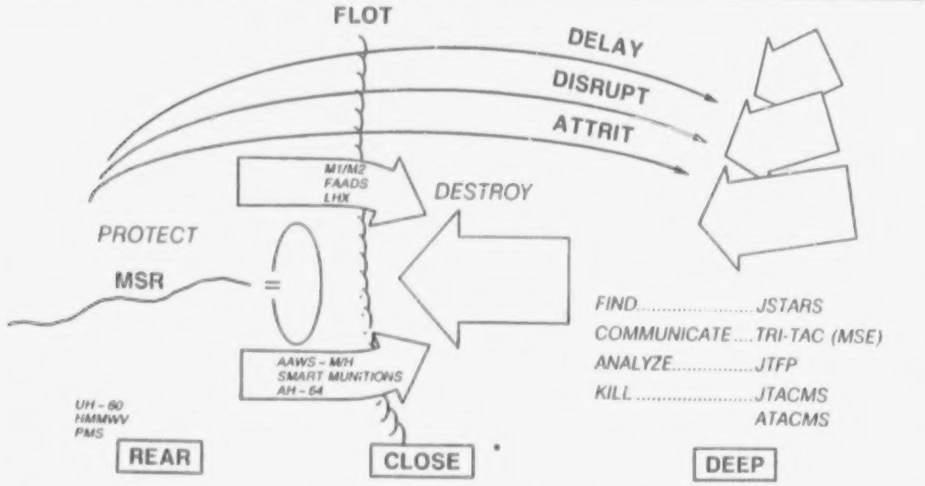
a. ALB doctrine is the U.S. Army's keystone operational warfighting doctrine.

b. Articulated in FM 100-5, ALB is the basis for development of subordinate manuals espousing tactics, techniques, and procedures.

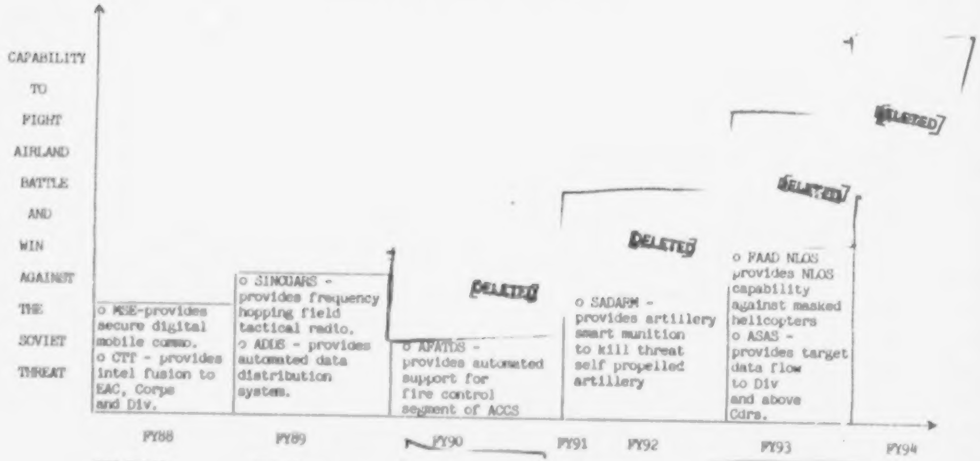
c. ALB doctrine is adaptable to theater conditions.

d. ALB doctrine will guide the U.S. Army to the 21st Century.

THE AIRLAND BATTLE


FLOT
DELAY
DISRUPT
ATTRIT
M1/M2
FAADS
LHX
DESTROY
PROTECT
MSR
AAWS - M/H
SMART MUNITIONS
AH - 64
UH - 60
HMMWV
PMS
FIND........................JSTARS
COMMUNICATE....TRI-TAC (MSE)
ANALYZE................JTFP
KILL.........................JTACMS
ATACMS
REAR
CLOSE
DEEP

ENHANCEMENT OF OPERATIONAL CAPABILITIES



o MSE-provides secure digital mobile commo.
o CTT - provides intel fusion to EAC, Corps and Div.

o SINCGARS - provides frequency hopping field tactical radio.
o ADDS - provides automated data distribution system.

o AFATDS - provides automated support for fire control segment of ACCS

o SADARM - provides artillery smart munition to kill threat self propelled artillery

o FAAD NLOS provides NLOS capability against masked helicopters
o ASAS - provides target data flow to Div and above Cdrs.

MSE-Mobile Subscriber Equipment

SINCGARS-Single Channel Ground Airborne Radio System

DELETED

ACCS-Army Command and Control System

DELETED

JSTARS GSM-Joint Surveillance and Target Attack System-Ground Station Modules

CTT-Commanders Tactical Terminal

ADDS-Army Data Distribution System

AFATDS-Advanced Field Artillery Tactical Data System

SADARM-Search and Destroy Armor

FAAD-NLOS-Forward Area Air Defense-Non Line of Sight

DELETED

SYSTEMS CRITICAL TO AIRLAND BATTLE
INITIAL OPERATIONAL CAPABILITY (IOC)

	FY88	FY89	FY90	FY91	FY92	FY93	FY94	FY95	FY96	FY97	FY98	FY99	FY00
	$M Q	$M Q	$M Q	$M Q	$M Q	$M Q	$M Q	$M Q	$M Q	$M Q	$M Q	$M Q	$M Q
DEEP													
SENSORS													
GR/CS (RC12D)	46/3	97/6	DELETED		65*	ASEMA:	74/0	218/10	251/12	440/20	460/20	480/20	500/20
IEW UAV (INITIAL)	43/3	35/2 7SETS* IOC					P3I TO ASEMA (FOLLOW-ON)						
AFATDS	119/1CORPS SET	105/1 CORPS SET	IOC					TBD*					
ATACMS BK 1	129/0	168/66	DELETED		1000*								
GSM (JSTARS)	60/6	97/14			IOC	95*	DELETED						
JSTARS	USAF LEAD							PROC OBJ NOT ACHIEVED BY FY2000; DATE TBD					
CTT	20/38	23/42		155*									
CLOSE													
M1A1	1538/600	1444/534			7844*			IOC AFV FOLLOW-ON SYSTEMS					
BFVS	709/616	703/618		6882*				AFV	850/600	900/600	1000/600	1236/600	
AH-64	655/67 675 NOT ACHIEVED*	78/0						IOC LHX FOLLOW-ON SYSTEMS					
FAAD													
N-LOS	132/0	240/0	DELETED		LT IOC	HVY IOC				403*			
LOS-F-H	59/4	264/40								562*			
C2I	190/	192/		IOC									
- GROUND SENSORS	/9	/4					123*						
- UNIT C2 SETS	/2	/4					28*						
FIREFINDER II	25/NA	50/NA			IOC						171*		
SADARM	104/0	152/133			IOC					TBD*			
MLRS	447/	417/											
SPLLS	24	44					681*						
RKTS	72K	36K										604K	
MLRS MOD	5/0	34/20			348*								
MLRS TGW	30/0	37/0				IOC				TBD*			
REAR													
LOS-R (PMS)	56/39	115/100	DELETED					1207*					
PATRIOT	892/	842/											
FIRE UNITS	12	9	106*										
MISSILES	715	815	6,517*										
UH-60	453/61AC	486/72AC		1107*				IOC LHX FOLLOW-ON SYSTEMS					
CONNECTING													
COMMS													
MSE	1020/12 IOC	396/12		50* (5 CORPS/28 DIV)									
ADDS/PJH	117/	159/ IOC											
NCS	4	8						146*					
EPUU	671	1393						24,875*					
JTIDS								644*					
SINCGARS	37/	384/											
GND	NA	16,000										277,703*	
ABN	720	1,200 IOC										13,821*	
FUSION - ASAS	54/0	32/0				DELETED				38*			

*PROCUREMENT OBJECTIVE ACHIEVED

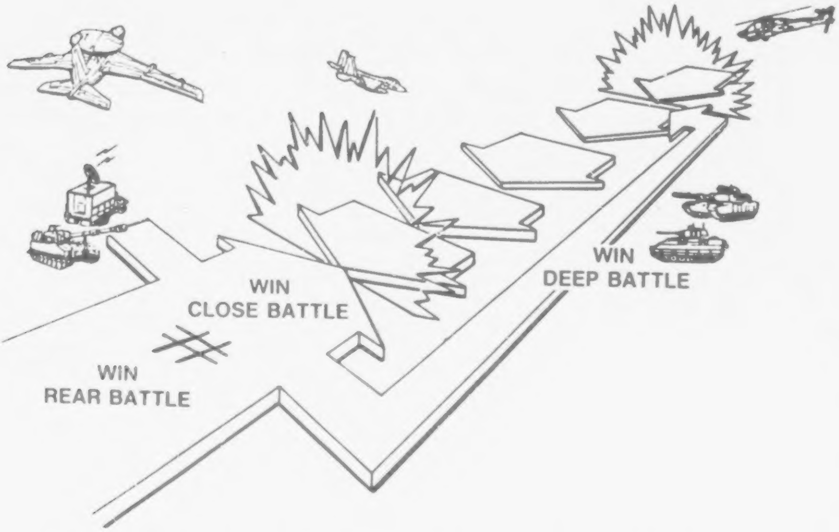
IOC - MTOE UNIT CAN EMPLOY SYSTEM

Chairman NUNN. We would like to have that. With particular reference to this budget as to what aspects of this budget are frugal in that respect.

Secretary MARSH. You are familiar with the AirLand Battle premise.

AIRLAND BATTLE TENETS

• INITIATIVE • DEPTH • AGILITY • SYNCHRONIZATION


WIN
DEEP BATTLE
WIN
CLOSE BATTLE
WIN
REAR BATTLE

On to the next chart. I mentioned to you I would give you some information on the CINCs.

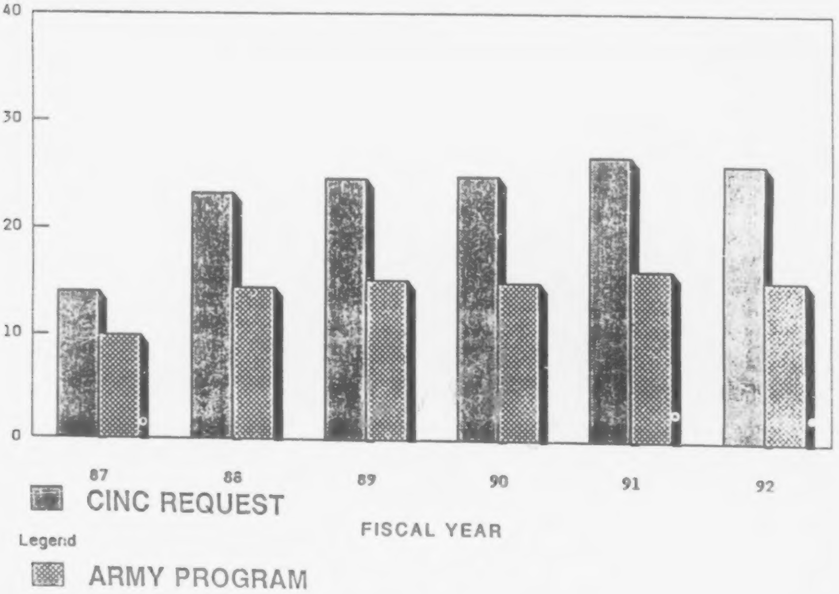
CINC STATUS

CINC	RQMTS SUB	GREEN	AMBER	RED
EUCOM	20	15	3	2
PACOM	30	15	11	4
CENTCOM	16	11	4	1
REDCOM	18	14	2	2
SOUTHCOM	33	25	2	6
LANTCOM	9	8	1	0
OTHER	4	4	-	-
TOTAL	130	92	23	15

Here are the various CINCs shown in this column. You will notice that in their requests that they submitted 130 issues. I would say to you that 92 of those are coded green, meaning 92 were supported and the CINCs' requests are addressed on the 5-year plan. The twenty-three amber requests were partly supported and the fifteen red requests in the Army Plan were minimally supported. To keep this in perspective, however, I would say that CINC requests over a period of about 5 years total $126 billion, of which about $76 billion were responded to favorably as far as we are concerned over the 5-year period.

SUPPORT OF CINC REQUIREMENTS

($B)



On this chart you see the CINC request in 1987 and our response. Here is 1988 and the response, and you can look through to 1992 and you will see that the requests are not fully supported. Let us have the next chart. If you want to——

Chairman NUNN. Could you put that one back up? Now, what is the higher line on the bar graph.

Secretary MARSH. The higher line is what the CINC's wanted. The lower line is what the CINC's got, what that command got.

Chairman NUNN. But that is a combination of all CINCs?

Secretary MARSH. That is just Army, the Army portion to all the CINCs.

Chairman NUNN. That is the combination of all of the CINCs' requests of the Army?

Secretary MARSH. Yes sir, given to the Army. This will show in another way, here we will show you——

Chairman NUNN. May I ask one question here? Do we have anything similar for the Air Force and Navy? Do we have any kind of chart where we can take a look and say here is what these things requested of the Army and here is what they got, and here is what they did for the Navy?

Secretary ALDRIDGE. We have it available. We do not have it here today.

Chairman NUNN. Could you furnish it?

Secretary ALDRIDGE. It is not dissimilar. It is very much similar.

[The information follows:]

SOPC FLOORSPACE AND HEAVY LIFT VEHICLE

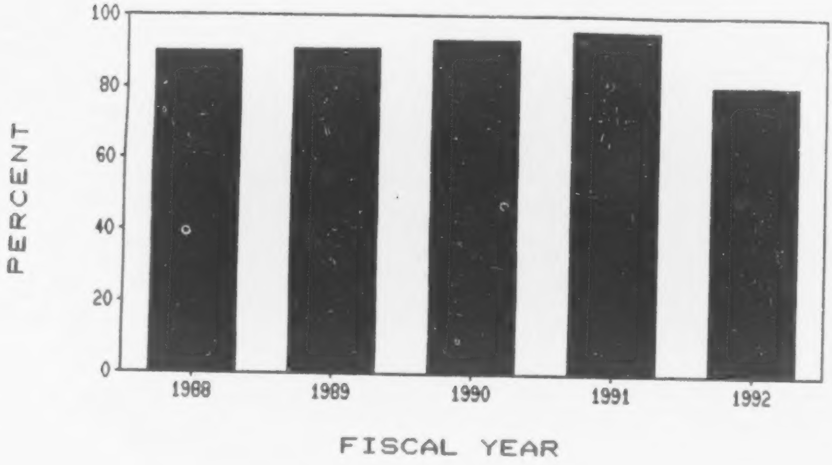
Space in the Consolidated Space Operations Center's (CSOC) Jack Swigert Operations Building is being reallocated following the cancellation of the Shuttle Operations and Planning Complex (SOPC) development. The Strategic Defense Initiative Organization (SDIO) will use most of the SOPC-allocated space for its Interim National Test Facility (INTF) through early FY 1989. The initial SDIO cadre is now in place. The availability of SOPC space does not change the requirement for a separate and permanent National Test Facility (NTF). CSOC's operations building was designed to support operational space programs, not research and development activities such as the NTF. Further, the NTF will require more space in a different configuration than can be provided in existing CSOC facilities.

A more appropriate allocation of space in the operations building would be for additional Mission Control Centers (MCCs). AF Space Command is finalizing its requirements for additional MCCs to support operational DOD space programs in the 1990s. In addition, the SDIO may require one or more MCCs for command and control of its space-based experiments. For economy and operational efficiency, the added AF Space Command and any SDIO MCCs would likely be similar to existing CSOC MCCs and will be tied into existing CSOC command, control and communications facilities and networks.

We are planning to honor our commitment to SDIO for interim use of SOPC space through early FY 1989, and are investigating the possibility of a one year extension. Ultimately, SDIO will be required to vacate SOPC spaces to make room for additional MCCs. We fully support the SDIO proposal for FY 88 and MILCON funds for construction of a permanent NTF on Falcon AFS.

The AF and SDIO will jointly definitize the total SDI support requirements on the CSOC, especially in the area of satellite telemetry, tracking and control, and will determine the most economical and operationally efficient way of incorporating SDI requirements into the on-going CSOC development program.

Regarding your earlier question, "has the Air Force decided to move away from a dependence on the shuttle and toward a larger payload?," the space launch recovery plan funded by last year's urgent supplemental does move us away from total dependence on the shuttle, but not towards larger payloads. The objective of the recovery plan is to ensure a more robust launch posture than before the Challenger failure. This plan includes a mixture of expendable launch vehicles. The heavy lift launch vehicle is part of our long-term planning. In conjunction with NASA and SDIO, we have been identifying the technologies required to move to the next generation space transportation systems. This next generation has a goal of significantly reducing the cost of operations over today's systems and is viewed to consist of unmanned vehicles for cargo and manned vehicles for those high-value missions requiring special handling. The heavy lift launch vehicle is part of the unmanned portion of the system. The Air Force, as part of our jointly coordinated study, was planning a late 1990s initial launch capability. The SDIO requests for supplemental funding would accelerate the initial capability.



NAVY SUPPORT OF CINC IDENTIFIED FUNDING REQUIREMENTS

The Navy programmed an average of $91.7B in support of CINCS for FY 88-92

Secretary MARSH. If you look at what it was that was not funded, sir, you will find that there are some pretty big items there. What they did not get falls generally in the area of sustainability, war reserves, major items, munitions, and secondary items, and here they are by command, and which ones made those requests.

MAJOR CINC NEEDS UNMET

- **SUSTAINABILITY (WAR RESERVES, MAJOR ITEMS, MUNITIONS, SECONDARY ITEMS)**
    - **EUCOM (PWRS)**
    - **PACOM (PWRS, SPARES)**
    - **CENTCOM (TR2/TR3, POL)**
    - **REDCOM (MUNITIONS,WRS)**
    - **LANTCOM (TR12)**
- **CS/CSS EQUIPMENT/PERSONNEL READINESS**
    - **CENTCOM**
    - **PACOM**
    - **EUCOM**
- **FORCE STRUCTURE (CS/CSS)**

You find also there was a significant request for combat support, and combat service support items, and here are the three commands that were seeking that and did not get it. Certain requests for force structure are not shown there. There was a force structure request for air defense artillery, which is not shown here but would be included as one that was not responded to. Force structure requests generally fell in the area of combat support and combat service support. Overall, that is where the CINCs made their requests.

Jointness

Dependent on airlift/sealift.
Airland battle doctrine.
Joint force development process.
Cross service programming.
JCS exercises.

To summarize jointness we in the Army are heavily dependent upon air and sealift for deployment; thus the AirLand Battle is dependent upon jointness. There is in the Department of the Defense or JCS level a joint force development process of some 35 to 40 initiatives that they are working on jointly. There is a committee called the JROC, the Joint Requirements Oversight Committee, which is run by the Service Vice Chiefs. The Vice Chiefs seek to review all the service requests and I would say, Senator that something we are now doing in all the services in the construction of our program objective memorandums [POMs] is that we have people from the Navy and Air Force that meet and work with us. By the same token we meet and work with them and that is very helpful. Then, of course, you are familiar with the JCS exercises. That is a very thumbnail overview, sir, of the Army program, and I will try to be responsive to any questions you might have.

[The prepared statement of Secretary Marsh follows:]

Prepared Statement by Hon. John O. Marsh, Jr., Secretary of the Army

Mr. Chairman and Members of the Committee: I am pleased to have the opportunity to testify concerning matters related to our national security.

In your letter of request to appear before the Committee, you asked that major program proposals be highlighted which have shaped the Department of Defense authorization request. Among those that I would make special reference to would be our continuing interest in the Light Divisions, Special Operations Forces, and systems associated with the AirLand Battle Doctrine including the Joint Surveillance and Target Attack Radar System, M-1 Series Tank, M2/M3 Bradley Fighting Vehicles, LHX, Advanced Antitank Weapon System-Medium, our forward Area Air Defense Systems, and Mobile Subscriber Equipment. A complete budget analysis and discussion may be found in the FY 88 Army Posture Statement, which has been provided in this Committee.

We in the Army are well into implementation of the Congressionally mandated reorganization of the Department of Defense, the creation of a Special Operations Forces Command, and the Packard Commission recommendations. Each is a major systemic change, with the goal to increase efficiency and force effectiveness.

As part of the Goldwater-Nichols Department of Defense Reorganization Act of 1986, the role of the Service Secretaries is clearly defined. They are responsible for the formulation of policies and programs consistent with the National Security Objectives and Policies established by the President or Secretary of Defense.

Our National Security Objectives are to deter conflict, coercion and to defeat aggression; to assist Allies and friends to defend against armed aggression, insurgencies, and terrorism, to ensure United States access to critical resources, the oceans and space; to reduce Soviet presence throughout the world; to prevent transfer of militarily significant technology; and to pursue equitable and verifiable arms reduction agreements.

Our Nation uses it economic, military and other means of national power to accomplish these objectives.

The fundamental elements of our National Military Strategy are nuclear deterrence supported by negotiated arms reductions and the Strategic Defense Initiative; strong alliances; forward deployed forces; a strong central reserve; force mobility; freedom of the seas, air and space; effective command and control; and good intelligence.

From the National Security Objectives and Strategy, the Army derives its missions and tasks. These include to defeat a Warsaw Pact attack on NATO and maintain its territorial integrity and security; defend vital United States interests in the Pacific; deny Soviet control of the Persian Gulf and associated oil resources; assist Allies and friends in Asia. Latin American and Africa, maintain capability to counter threats in the Western Hemisphere; and respond to other threats to United States interests anywhere in the world.

The diverse global responsibilities of the Army require that it be balanced, flexible, strategically mobile and manned by quality soldiers. Thus it becomes a critical contributor to the deterrence strategy.

Because the Army is forward deployed, it places a great deal of emphasis on strong central reserves from which we can rapidly reinforce our elements overseas through responsive force projection.

Given the conventional imbalance between us and the Soviets and their Warsaw Pact allies, we depend heavily on our Allies in NATO as the cornerstone of our conventional strategy.

The North Atlantic Treaty Organization is crucial to our Nation's forward line of defense. NATO has preserved peace in Western Europe for a longer period than any time since the fall of the Roman Empire. Any withdrawal of forces from NATO at this time would be counterproductive and could drive the continent toward a neutral position, playing right into the hands of the Soviets.

The Secretary of the Army has the opportunity to influence the formulation of defense policy objectives. He:

Informs the Secretary of Defense concerning Army capabilities to recruit, train, equip, and sustain our forces.

Is the Army spokesman on Defense Policy Formulation.

Represents the Army on the:

Defense Resources Board.

Armed Forces Policy Council, and the

Defense Acquisition Board.

Approves the Army input to Defense Guidance, which provides an authoritative statement of the threat, and announces strategic objectives, national military strategy, and provides force and resource guidance to the military services, Department of Defense agencies, and to the Unified and Specified Commands.

Combatant commands' needs are addressed during program development through both generalized concerns and an integrated priority list. The various Army component commands convert this to resource data, and I approve that portion of our program which tells in a special annex what we resource for the commands. Additionally, the commanders make their needs known through the Defense Resources Board, which is the final decision body for discrepancies.

To eliminate duplication of effort between the Services with regard to support of the combatant commands, various memoranda of agreement have been signed, and a Joint Requirements Oversight Council has been established. The Joint Forces Development Process, which was established in 1984, has been estimated to have saved over $1 billion in cost avoidance.

Of course not all the requests of the Commanders in Chief can be resourced. We can only fund $76 billion of the $125 billion requested. Major needs we have been unable to meet include sustainability, and combat service and support readiness requirements for equipment, personnel and force structure. However, the Army is working to allow the procedures developed in the last two years to mature so that successes in cooperation continue.

I am confident we will improve the efficiency and effectiveness of our land forces. The Army is aggressively implementing the required changes, shifting certain responsibilities from the Army Staff to the Secretariat, while streamlining to achieve the mandated 15% reduction in Army Headquarters personnel. We support the intent of the legislation, although frankly the Title IV Joint Officer Personnel Policy is proving extremely difficult to implement as written.

The ultimate strategy of the United States Army is to defend the Constitution of the United States. In that endeavor we are an essential part of the Common Defense. Achieving the goals of that great document including the preservation of liberty must be a key part of all of our strategic concerns.

Chairman NUNN. Thank you very much, Mr. Secretary. We appreciate that. You did give us the broad view, which is what we asked for, and we appreciate it. We are delighted to have you.

STATEMENT OF HON. JAMES F. GOODRICH, UNDER SECRETARY OF THE NAVY

Secretary GOODRICH. Thank you, Mr. Chairman and members of the committee. I welcome the opportunity to appear before this distinguished committee to address major issues which have shaped the Navy and the Marine Corps portion of the defense budget for fiscal years 1988 and 1989. I will also discuss progress to date in complying with the Goldwater-Nichols Department of Defense Reorganization Act of 1986.

Secretary Lehman asked me to relay his sincere regrets that he could not attend today's hearing. The heightened tensions in the troubled Middle East forced the U.S.S. *Kennedy* battle group to remain on station beyond its normal end of deployment starting last week. Secretary Lehman planned to go aboard JFK to express his appreciation to our sailors and marines who, after 6 months of family separation, now find their return home delayed. I am sure he not only expresses his personal gratitude but our own appreciation for their skills, performance, and personal sacrifice.

Chairman NUNN. Well, tell the Secretary we miss him but we think he is on an important mission. We understand it completely.

Secretary GOODRICH. Thank you. I am sure he will appreciate that. These actions I have just described illustrate once again the absolutely vital role of our carrier attack groups as instruments of national policy and also our people's devotion to duty. The versatility of these carriers, the military utility of their embarked airwings, and the offensive punch represented by the entire carrier battle group provide the flexibility to respond time and time again to U.S. global interests.

The President's statement on national security strategy clearly defines the roles and missions of our Naval forces. It also establishes the basic minimum requirements for which this budget seeks your authorization. I would like to quote a few key phrases for background.

> Maritime forces play a unique role in supporting our military strategy. Given the realities of our geostrategic position fronting on two oceans, maritime superiority is used to support alliance relationships and our forward deployed forces. Maritime superiority enables us to capitalize on Soviet geographic vulnerability and to pose a global threat to the Soviet interest. Essential to our wartime strategy, maritime superiority plays equally vital roles in peacetime.
>
> To achieve National Security Strategy objectives, we need a maritime strategy that is global, forward deployed, and—with our allies—superior to our probable opponents. Global, because our interests, allies, and opponents are global. Forward deployed, because to protect those interests and allies, and to deter those opponents, we must be where they are superior, because if deterrence fails to prevent a conventional war at sea, it is better to win than to lose.

The President, the Secretary of Defense, and the Chairman of the Joint Chiefs of Staffs as well as the unified commanders of the Pacific and the Atlantic have established a minimum goal of 600 ships entered around 15 carrier battle groups to meet the requirements for maritime superiority with an acceptable degree of risk. The Congress has supported this goal and the 600-ship Navy will be a reality in fiscal year 1989. Ship construction programs in this budget as well as the out years will continually adjust the proper fighting balance within the 600-ship goal.

The fiscal years 1988–1989 budget is responsive to the national security strategy and the maritime objectives assigned to the Navy and the Marine Corps. From maritime strategy came the force structure planning requirement. Throughout the year the strategy and the force levels have been refined and tested in multinational exercises, simulations, and war games. An important input to the preparation of this budget is the operational and theater commanders' assessments and recommendations for funding priorities. The budget for fiscal years 1988 and 1989 contain both the capital investment to upgrade the 600-ship force and the operating funds for it. Sustaining the needed force levels is affordable in part because many costs have been eliminated through initiatives in business and very inventive, we think, and other management economies.

The fiscal years 1988–1989 budget estimates for the Department of the Navy are $101.7 billion and $106.8 billion, respectively. These estimates reflect growth in real terms of less than 3 percent for each of the periods. It is the minimum required to support a sustained 600-ship Navy of the right mix. The planned growth in this year's request when combined with the negative growth over the last 3 years will result in a cumulative Department of Navy growth during the entire fiscal years 1985 through 1989 period of 0.4 percent.

This budget supports a total deployable battle force which supports our strategic and tactical needs. Our shipbuilding program is consistent and keeps key programs such as Trident improved *Los Angeles* class SSNs, SSN 21 and DDG 51 tracking, all strong additions to our balanced antisubmarine warfare priorities.

This budget also includes long lead funding to build two new carriers as replacement for the U.S.S. *Midway,* commissioned in 1945, and a *Forrestal*-class carrier which will be over 45 years old at the end of the century and at the time of its retirement. The cruisers and destroyers and aircraft to support these ships are already in place or included in planned out year budgets. This initiative does not, as some critics would have the public believe, include a commitment to fund additional battlegroup assets and aircraft. The carriers addressed are merely replacements for existing ships and I wish to again emphasize that these are replacement, not additional ships.

Well, why two carriers now, even as replacements? The overall strategy has not changed, only the timing. It takes 9 years from early lead procurement to delivery of the replacement CVN. The change to a 2-year budget cycle causes us to focus more on out-year issues. Fiscal constraints demand that we find ways to optimize the Navy's top line spending. The alternative of further maintenance of the older carriers is very costly. Moreover, these two battlegroup centerpieces will be carbon copies of the U.S.S. *Nimitz* with no changes except those that are cost reducers. Buying two heel-to-toe fashion, in that fashion instead of one at a time will allow us to achieve learning curve and other savings of approximately $1.5 billion per ship for a total of approximately $3 billion. Funding these starts now will avoid increased costs later. There simply is no equivalent to the large carrier in terms of versatility across the broad spectrum of war-fighting requirements from low intensity conflict to all-out war.

Recently the argument has been presented that the carrier acquisition has been proposed at the expense of the other services. This is not the case. Quoting again from the President's national security strategy:

> Maritime superiority plays a key role in plans for the defense of NATO allies on the European flanks. It also permits the United States to tie down Soviet naval forces in a defensive posture protecting Soviet ballistic missile submarines and the seaward approaches to the Soviet homeland to minimize the wartime threat to reinforce and resupply Europe by sea.

The significance of this statement is that over 95 percent of the sustaining logistics support for our forces engaged in any overseas land engagement must come by sea. Seen in this light, carrier battle groups actually complement and support service operations. Long lead funding for the two CVNs was provided completely within the planned Navy budget authority. Army and Air Force programs are not paying for those carriers.

Can we afford two carriers starting now? The answer is an unequivocal yes. The moderate adjustments required in the shipbuilding and other procurement accounts are acceptable when spread out over the 8-year outlay program. The dollars saved allow buyback of these adjustments in our out year budget lines. Indeed, we cannot afford not to start them now. Failing to do so might some day put us in the untenable position of not being able to respond affirmatively, forcefully, and effectively to the established requirements for maritime superiority. We maintain the industrial capacity to rapidly increase production of ammunition and even aircraft, but this is not possible with aircraft carriers.

We have not sacrificed readiness and sustainability to support our force structure. Quite the contrary is the case. In our current budget, submission readiness and sustainability will increase its share of the Navy's total obligational authority from 60.5 percent to 63.7 percent. Of the four pillars, sustainability has witnessed over 11 percent annualized real growth from 1980 out to 1989, more than double any other category of our budget pillars.

Despite the fact that there is a 2- to 3-year lag between funding and delivery, our overall ordnance stocks have grown between 20 and 90 percent depending on the type of ammunition and ordnance, larger than it was in 1981, and we are increasing literally every day as deliveries reach the fleet. For example, the number of in-bin cruise missiles has more than doubled in this period of time. These developments, these investments have indeed paid dividends, and we have seen dramatic improvements in both aircraft and ship readiness as a result.

Manpower issues play a major role in our budget considerations. Because of congressionally imposed reductions in the last 4 years, our end strength increase has not matched the requirements of the ships that have been added. The shortfall has been imposed on the shore establishment, and that expediency can no longer absorb further cuts. We need our requested active and reserve end strengths for both fiscal years 1988 and 1989.

The recent congressional legislation to reduce officer end strength has been superimposed on a significant reorganization effort by all the services to comply with Title 4 requirements. The Navy is committed to the provisions of the Goldwater-Nichols Defense Reorganization Act of 1986. To comply fully with the tenets of the act, we must assign greater numbers of officers to joint staff assignments. The Navy is seriously underrepresented now and will require substantial growth in our officer end strengths in order to fulfill those joint requirements. This new emphasis means significant changes in our officer assignment process. The increased importance of the joint and OSD duty mandated by the Goldwater-Nichols Act requires that the Department of the Navy have relief if we are to participate on an equitable basis and still maintain our current commitments.

We have been and will continue to be an efficient war-fighting department, but the fiscal year 1987 authorization act not only eliminated all requested fiscal year 1987 officer end strength growth for the Department of Navy, but reduced us below the fiscal year 1986 approved level. We request you to reconsider the officer reductions currently planned for 1988 and 1989. The program strength is valid and essential to our war fighting readiness.

Now, as you requested, I will say a few words about the new responsibilities assigned to the Navy under the Goldwater-Nichols Act.

First, as I noted in my opening remarks, the integral relationship between the President's national security strategy and the Department of the Navy maritime strategy provided the primary foundation for supportive policies and progress in this area. To fully comply with the Defense Reorganization Act, the Department of the Navy has contracted during the past year with Coopers and Lybrand consulting firm to assist in staff analysis to formulate sound headquarters reduction recommendations. Actions to comply with the request and required staff reductions will be implemented this spring, possibly before May.

The second area this committee asked the Navy to focus on concerned the manner in which we fulfill current and future operational requirements of Unified and Specified Commands. Over the past few years, the Navy has institutionalized the budget process to make sure that the concerns of the CINCs are considered and integrated during the budget process. During all phases of the planning, programming, and budgeting process, the Chief of Naval Operation's and the Commandant's Staff interact directly with the CINC staffs to ensure close liaison on priority issues. Unified Commands provide inputs to the warfare areas appraisals, which is the first step in the Navy's program planning. The warfare appraisals assess the CINCs' capability to execute elements of maritime strategy which is a component of the national military strategy. Additionally, the Chief of Naval Operations requests the unified CINCs' maritime concerns and addresses those concerns in the Navy's program objective memorandum. During this program planning cycle, the CNO's budget integrates their priority lists. The Director of Naval Warfare also includes CINC priorities at each warfare appraisal area.

The Navy has listened to the CINC's during this year's budget preparation. Their priorities of readiness and manpower are supported. The fiscal years 1988–1989 submission indicates that 56 percent of the Navy's TCA supports readiness. This is a 5 percent real growth over the 5-year defense program. Our progress in improving readiness has been real and is borne out by the facts: In the past 6 years, overall combat readiness for surface ships has improved by 11 percent; for nuclear attack submarines by 69 percent; and aviation squadon readiness has increased over 200 percent under the unit reporting system.

Responding to another area of CINC concerns, the Navy shows 38 percent real growth in the area of command control and communications, C3.

The third and final area this committee requested comments on was the effective corroboration and coordination between the Navy and the other military departments and the Department of Defense agencies. Close coordination of policy as well as organizational matters is affected through weekly meetings of the Armed Forces Policy Council, which includes the Secretary of Defense, Deputy Secretary of Defense, each service Secretary, and members of the Joint Chiefs of Staff. The service vice chiefs routinely participate in the Joint Requirements Oversight Council, which serves to ensure military requirements that are common to all services are developed under one program. This applies not only to the entire weapons systems, such as HARM antiradiation missile, but also common aviotics and communications subsystems. Additionally, the Navy exercises with the operational forces of the Army and Air Force on a routine basis. For example, during fiscal year 1986 the Navy conducted 22 major exercises with Air Force participation and 12 similar exercises involving the Army. Major joint exercises included TEAM SPIRIT 86, DISTANT HAMMER 86, NORTHERN WEDDING 86, and others.

Joint operations and support also enhance our overall strategic posture. The Air Force provides significant contributions to maritime superiority through its support of the Navy in early warning of enemy air threats, long-range antisurface warfare, and laying of antisubmarine mines.

Of course, last April superb execution of the Navy-Air Force joint strike on facilities that supported terrorist activities in Libya graphically demonstrates the interservice cooperation. That Navy and Air Force combat units separated by nearly 3,000 miles arrived under cover of darkness on a coordinated target within seconds of each other tells more than words can say about the reality of truly integrated Air Force and Navy operations.

Well, this good news should not blind us to the requirements of the future, a future of zero growth budgets or worse would mean that we would be unable to sustain the 600-ship Navy or a capable defense in relation to the threat and global U.S. interests. We know from painful experience in the 1970s that the damage done by no growth funding is far greater than the mere percentage budget loss would indicate.

Inadequate funding results in inefficient production rates and higher unit costs. In the final accounting, the American taxpayer gets much less for his hard-earned dollars. Even worse is the decline in quality and morale of the people who man the fleet, as we saw late in 1970.

In conclusion, Mr. Chairman, I appreciate the opportunity afforded me by this committee to present this brief review of the Navy's budget submission on behalf of Secretary Lehman. The Secretary would like to place his posture statement into the record upon his return.

Thank you very much.

[The statement of Under Secretary Goodrich follows:]

PREPARED STATEMENT BY HON. JAMES F. GOODRICH

Mr. Chairman and Members of the committee: I welcome the opportunity to appear before this distinguished committee to address the major issues which have shaped the Navy and Marine Corps portion of the defense budget for Fiscal Years 1988 and 1989. I will also discuss progress to date in complying with the Goldwater-Nichols Department of Defense Reorganization Act of 1986.

Secretary Lehman asked me to relay his sincere regrets that he is unable to attend this hearing today. When your invitation to appear before this committee arrived, Secretary Lehman was already in Europe for a series of meetings. With the realignment of our forward deployed carriers in response to heightened tensions in the troubled Middle East. The *Kennedy* battle group was being extended beyond their normal end of deployment date. Secretary Lehman had planned to go aboard JFK to show concern from the top for those being told their return home date had been delayed after six months of family separation and express his personal gratitude for their magnificent performance and personal sacrifices.

These actions serve to reinforce, once again, the absolutely vital role of our carrier battle groups as instruments of national policy and the concomitant sacrifice of our people which should never be taken for granted. The versatility of these carriers, the military utility of their embarked air wings, and the offensive punch represented by the entire carrier battle group provide the flexibility to respond time and time again to U.S. global interests.

I will now briefly address a few of our top line issues. In view of his inability to be here today, Secretary Lehman requests the opportunity to submit his full posture statement for the record upon his return.

The President's statement on National Security Strategy clearly defines the roles and missions of our naval forces. It also establishes the basic minimum requirements for which this budget seeks your authorization. I would like to quote a few key phrases for background:

Maritime forces play a unique role in supporting our military strategy. Given the realities of our geostrategic position, fronting on two oceans, maritime superiority is used to support alliance relationships and our forward deployed forces. Maritime superiority enables us to capitalize on Soviet geographic vulnerability and to pose a global threat to the Soviet interests. Essential to our wartime strategy, maritime superiority plays equally vital roles in peacetime.

To achieve National Security Strategy objectives, we need a maritime strategy at once global, forward deployed, and—with our allies—superior to our probable opponents. Global, because our interests, allies, and opponents are global; forward deployed, because to protect those interests and allies, and to deter those opponents, we must be where they are; superior, because if deterrence fails to prevent a conventional war at sea, it is better to win than to lose.

The President, the Secretary of Defense, and the Chairman of the Joint Chiefs of Staffs, as well as the Unified Commanders of the Pacific and Atlantic Fleets, have established a minimum goal of 600 ships centered around 15 carrier battle groups to meet the requirements for maritime superiority with an acceptable degree of risk. The Congress has supported this goal and the 600-ship Navy will be a reality in fiscal year-1989. Ship construction programs in this budget as well as the out years will continually adjust the proper fighting balance within the 600-ship goal.

The fiscal year-1988/1989 budget is responsive to the national security strategy and the maritime objectives assigned to the Navy and Marine Corps. From maritime strategy came the force structure planning requirement. Throughout the year, the strategy and the force levels have been refined and tested in multi-national exercises, simulations, and wargaming. An important input to the preparation of this budget is the operational and theater commanders assessments and recommendations for funding priorities. The budget for fiscal years 1988 and 1989 contain both the capital investment to upgrade the 600-ship force level and the operating funds to support it. Sustaining the needed force levels is affordable in part because unnecessary costs have been eliminated through innovative business strategies and other management economies.

The fiscal year 88/89 budget estimates for the Department of the Navy are $101.7B and $106.8B respectively. These estimates reflect growth. In real terms, of less than three percent for each of the periods. It is the minimum required to support a sustained 600-ship Navy of the right mix. Taken as a whole, the modest growth in the budget, combined with real program decreases in fiscal year 1985 through fiscal year 1987, will result in a cumulative Navy growth during the entire fiscal year 1985 through fiscal year 1989 period of 0.6 percent.

This budget supports a total deployable battle force which supports our strategic and tactical needs. Our shipbuilding program is consistent and keeps key programs such as Trident, improved *Los Angeles*-class SSNs, SSN 21, and DDG 51 tracking—all strong additions to our balanced ASW priorities.

This budget also includes long lead funding to build two new carriers as replacements for the USS *Midway*, commissioned in 1945, and a *Forrestal*-class carrier which will be over 45 years old at retirement. The cruisers and destroyers and aircraft to support these ships are already in place or included in planned out year budgets. This initiative does not, as some critics would have the public believe, include a commitment to fund additional battle group assets and aircraft. The carriers addressed are merely replacements as attrition so that we do not mortgage the future by depending on our old carriers to remain indefinitely capable of meeting a modernized Soviet threat.

Why two new carriers now, even as replacements?

The overall strategy has not changed just the timing. It takes nine years from early lead procurement to delivery of a replacement CVN. The change to a two-year budget cycle resulted in our focus changing more to out year issues. The fiscal constraints that we face demanded we find ways to optimize the Navy's topline spending. Providing for these carriers *now* is an astute business decision. The alternative—of further maintenance of the older carriers—is very costly. Moreover, these two battle group centerpieces will be carbon copies of USS *Nimitz* with no changes except those that are cost reducers. Buying two in "heel to toe" fashion instead of one at a time will allow us to achieve a learning curb savings of approximately $3B. Funding these starts now will avoid increased costs later, of large carriers vs. small and relative vulnerability have all been debated extensively, and there simply is no equivalent to the large carrier in terms of versatility across the broad spectrum of warfighting requirements from low intensity conflict to all-out war.

Recently, the argument has been presented that the carrier acquisition has been proposed at the expense of the Army. This is not the case. Quoting again from the President's National Security Strategy:

"Maritime superiority * * * plays a key role in plans for the defense of NATO allies on the European flanks. It also permits the United States to tie down Soviet naval forces in a defensive posture protecting Soviet Ballistic Missile submarines and the seaward approaches to the Soviet homeland and to minimize the wartime threat to the reinforcement and resupply of Europe by sea."

The significance of this statement is that over 95 percent of the sustaining logistic support for our Army engaged in any overseas land engagement must come by sea and, therefore, the CVBG force structure is a supplement not a detriment to Army requirements. Therefore, the naval forces actually operate in support of and contribute to the Army's military strategy. Long-lead funding for the two CVNs was provided completely within the Navy TOA. Army and Air Force programs are not paying for Navy aircraft carriers.

Can we afford two carriers starting now? The answer is an unequivocal "yes". The moderate adjustments required in the SCN account and other procurement accounts are acceptable when spread out over the 8-year outlay of the program. The dollars saved allow buy back of these adjustments in out year budget lines. Indeed, we cannot afford not to start them. To fail to do so might someday put us in the untenable position of not being able to respond affirmatively, forcefully, and effectively to the established requirements for maritime superiority. We maintain the industrial capacity to rapidly increase production of ammunition and even aircraft but this is not possible with the carriers.

Contrary to what many assume, we have not sacrificed readiness and sustainability to support our force structure. Quite the contrary is the case. Readiness and sustainability will grow 3.2 percent as a result of our current budget submission over the previous four years. Concurrently, force structure and modernization have had their investment percentages decreased by a similar percentage. Of the four pillars, sustainability has witnessed over 11 percent annualized real growth from FY-80—FY-89—more than double any other category in our budget pillars.

Despite the fact that there is a two to three year lag between funding and delivery, our overall ordnance stocks have grown between 20 and 90 percent larger than they were in 1981, and are increasing literally every day as deliveries reach the fleet. For example, the number of in-bin cruise missiles has more than doubled. These investments have indeed paid dividends and we have seen dramatic improvements in both aircraft and ship readiness as a result.

Strategic homeporting continues to be a top priority. This program will allow us to accommodate the fleet without overcrowding current homeports, while simultaneously overcoming some strategic shortcomings inherent in our current posture. Through competition and working the local communities, we expect to meet our goals despite FY-87 cuts of $10M in MILCON for Staten Island and over $52M for Everett, Washington. We are working to comply with specific FY-87 congressional language and will comply with the mandate $799M budget cap on strategic homeporting through 1991.

Manpower issues play a major role in our budget considerations. Because of congressionally imposed reductions in the last four years, our end-strength increase has not matched the requirements of the ships that have been added. The shortfall has been imposed on the shore establishment and the expediency can no longer absorb further cuts. Our Navy and Marine Corps active force end-strength must be raised in both FY-1988 and 1989. Reserve force structure also needs both the Naval Reserve and the Marine Corps Reserve.

The recent congressional legislation to reduce officer end-strength has been superimposed on a significant reorganization effort by all the services to comply with Title IV requirements.

The Navy is committed to the provisions of the Goldwater-Nichols Defense Reorganization Act of 1986. To comply fully with the tenets of the act, we must assign significantly larger numbers of officers to joint staff assignments. The Navy is seriously under represented and will require significant growth in our office end-strength in order to fulfill those joint requirements. Not only these new out of service billets, but the increased training load required to develop joint specialists portends significant changes in our officer assignment process. The shift of emphasis and importance to joint and OSD duty mandated by the Goldwater-Nichols Act requires that the Department of the Navy have relief if we are to participate on an equitable basis and still maintain current commitments.

We have been and will continue to be an efficient warfighting department, but the FY-87 National Defense Authorization Act has not only eliminated all programmed FY-87 growth for the DON but has reduced us below our FY-86 programmed level. We request you reconsider the officer reductions currently planned for FY-88/89. The programmed strength is valid and essential to the warfighting readiness of the department. It must be continued in order to meet the requirements levied upon us by Congress, our responsiveness to the Joint arena, and our current worldwide commitments.

Now I will address some specific comments outlining our progress in the specific areas of compliance with the Goldwater-Nichols Department of Defense Reorganization Act. My opening remarks establishing the interface between the President's national security strategy and the Department of the Navy's maritime strategy provided the primary foundation for supportive policies and programs in this area.

To fully comply with the Defense Reorganization Act, the Department of the Navy has contracted during the past year with the Coopers and Lybrand consulting firm to assist in staff analysis to formulate sound reduction recommendations. Actions to comply with required headquarters staff reductions will be implemented this spring.

The second area this committee asked the Navy to focus on concerned the manner in which we fulfill current and future operational requirements of unified and specified combatant commands. Over the past few years, the Navy has institutionalized the budget process to make sure that the concerns of the CINCs are considered and integrated during the budget process. For example, the Navy POM now includes a CINC annex which summarizes the total Navy support for all CINC integrated priority list concerns. During all phases of the Planning, Programming, and Budgeting System, the CNO staff interacts directly with CINC staffs to ensure close liaison on priority issues.

The unified commands provide inputs to the warfare area appraisals which is the first step in the Navy's program planning. The warfare appraisals assess the CINC's capability to execute elements of maritime strategy which is a component of the national military strategy. Additionally, the Chief of Naval Operations requests the unified CINCs maritime concerns, and addresses those concerns in the Navy's program objective memorandum (POM). During this program planning cycle, the CNO's budget integrates their priority lists. The Director, Naval Warfare also includes CINC priorities in each warfare appraisal area.

The Navy *has* listened to the CINCs during this year's budget preparation. Their priorities of readiness and manpower are supported. The FY-88/89 budget submission indicates that 56 percent of the Navy's TOA supports readiness. This is 5 percent real growth over the POM. Our progress in improving readiness has been real, and is borne out by the facts:

In the past six years, overall combat readiness for surface ships has improved by 111 percent;

For nuclear attack submarines by 69 percent;

And aviation squadrons mission capable rates increased 15 percent in the past four years.

Responding to another area of CINC concerns, the Navy shows 38 percent real program growth in the area of command, control, and communications (C3).

The third final area this committee requested comments on was the effective cooperation and coordination between the Navy and the other military departments and DOD agencies. The emphasis is to provide for more effective, efficient, and economical administration and to eliminate duplication.

Close coordination of policy, as well as organizational matters, is effected through a weekly meeting of the Armed Force Policy Council which includes SECDEF, Deputy SECDEF, each service secretary, and the members of the Joint Chiefs of Staff. Other examples of joint coordination are found in the Joint Requirements Oversight Council, the Joint Requirements Management Board, the Joint Force Development Project and the Interoperability and Integration Division in the Office of the Joint Chiefs of Staff. Additionally, the Navy exercises with the operational forces of the Army and Air Force on a routine basis. For example, during FY-1986 the Navy conducted 21 major joint exercises with Air Force participation, and 12 similar exercises involving the Army. Major joint exercises included TEAM SPIRIT 86, DISTANT HAMMER 86, RIMPAC 86, NORTHERN WEDDING 86.

Joint operations and support also enhance our overall strategic posture. The Air Force provides significant contributions to maritime superiority through its support of the Navy in early warning of enemy air threats, long-range anti-surface warfare, and the laying of anti-submarine mines. Of course, last April's superb execution of the joint Navy-Air Force strike on facilities that supported terrorist activities in Libya graphically demonstrates interoperability. That Navy and Air Force combat units separated by nearly 3,000 miles arrived under cover of darkness on coordinated targets within seconds of each other tells more than words can say about the reality of truly integrated Air Force-Navy operations.

This "good news" should not blind us to the requirements of the future. A future of zero-growth budgets—or worse—would mean that we will be unable to sustain a 600-ship Navy—or a capable defense in relation to the threat and global U.S. interests. We know from painful experience in the 1970s that the damage done by no-growth funding is far greater than the mere percentage budget loss would indicate. Rates of production must then be cut, individual unit costs increase dramatically, productivity falls, and, in the final accounting, the American taxpayer gets much less "bang for the buck". Even worse is the decline in the quality and morale of the people who man the fleet, as we saw in the late 1970s.

Thanks for allowing me to present this brief review of the Navy's budget submission on behalf of Secretary Lehman. The Secretary would like to place the entire Posture Statement into the record upon his return.

Chairman NUNN. Thank you very much, Mr. Secretary.

Secretary Aldridge.

STATEMENT OF HON. EDWARD C. ALDRIDGE, SECRETARY OF THE AIR FORCE

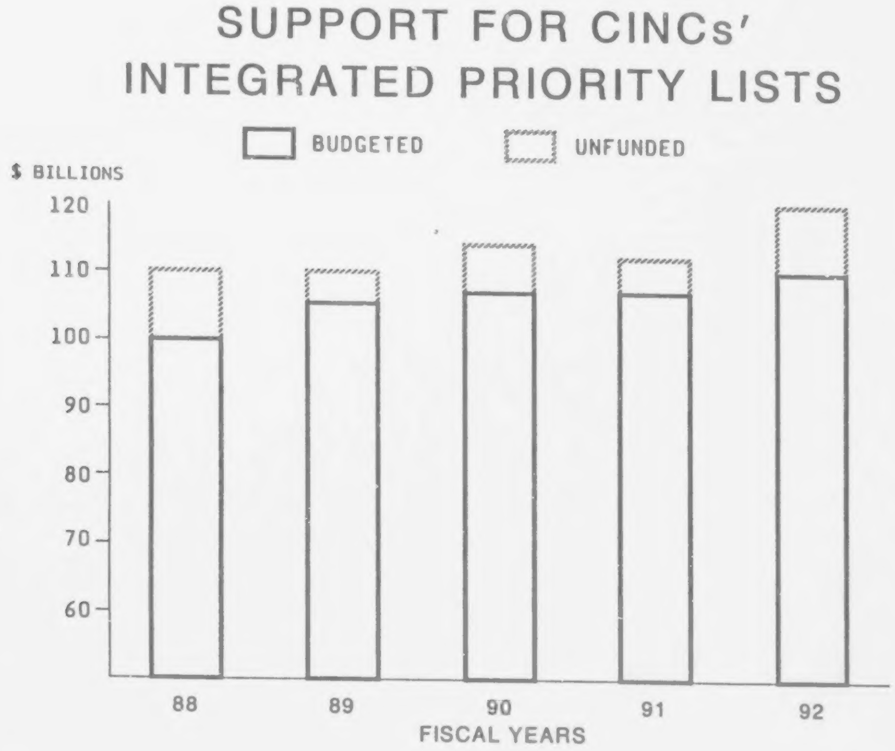
Secretary Aldridge. Thank you, Mr. Chairman. It is a pleasure to appear before this committee. As a matter of fact, it is my first appearance as the Secretary of the Air Force, and it is an honor to appear before this committee with Secretary Marsh and Under Secretary Goodrich. I have a formal Air Force statement in support of our report to the 100th Congress and our budget request for fiscal years 1988 and 1989. I will not review that statement or repeat that statement today, but I would like to touch upon a few of the issues of interest to this particular committee.

Let me start by saying that the degree of participation of the CINCs in the PPBS support and of the CINCs requirements are similar in the Air Force to the Army and the Navy. We will be glad to provide the accomplishment chart for the record as you have requested.

Accomplishment of CINC Requirements

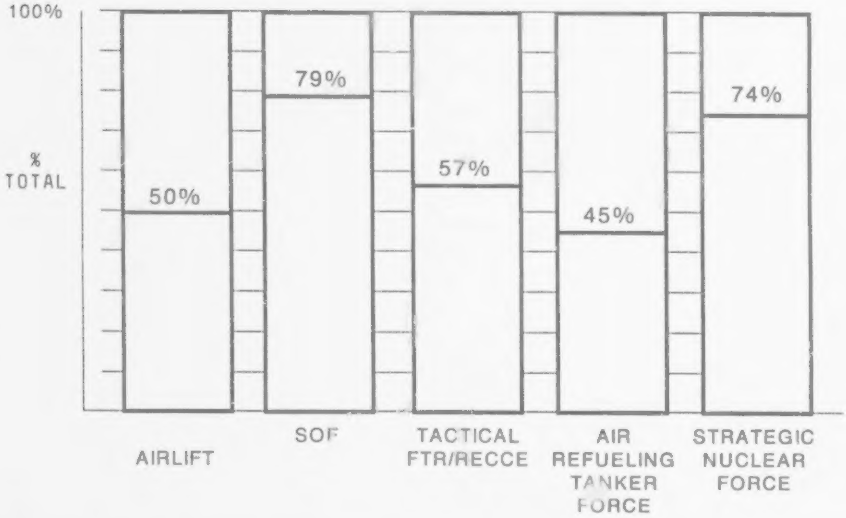
Chart 1 compares forces planned over the FYDP to the aggregate of CINC requests, after eliminating duplication and overlap in requirements.

Chart 2 compares Air Force capability to specific requirements identified by the CINCs in their responses to the FY 88-92 Air Force program.



CAPABILITY vs FORCE GOALS
DERIVED FROM CINC REQUIREMENTS

FUNDED IN FY 88-92 FYDP



Mr. Chairman, you have often expressed your concern over the relationship of our force structure and our budgetary request to national strategy. Briefly, in at least three areas of particular concern to the Air Force, I believe we made remarkable progress in addressing defense priorities consistent with the national strategy developed by the administration and reported in the President's national security strategy report for 1987.

The fundamental principle of our national strategy remains deterrence. Our objective is to deter war at all levels of conflict. Over the past 6 years we have implemented the strategy of deterrence through modernization of our forces and increasing their readiness to perform their missions. In the strategic arena, the Air Force brought into the inventory the Peacekeeper intercontinental ballistic missile and the B-1B bomber. Both of these systems significantly enhanced the deterrent effect of our strategic Triad, bringing us the first new ICBM in some 15 years and the first new bomber in a quarter of a century.

The basing of the Air Force ground launched cruise missiles in Europe also plays an important part in that deterrent strategy. Mr. Chairman, just yesterday I had the pleasure of flying the B-1B at Dyess Air Force Base in Texas and discussing the alleged problems with the flight and maintenance crews. Let me just say those who would criticize the airplane are simply not encumbered by the facts on its performance or its capability.

We also aim to deter at lower levels of conflict with strong conventional force such as tactical air, conventionally armed strategic aircraft, and Air Force components of special operations forces. To reinforce our conventional deterrent, we have applied a strategy of forward deployment of modern tactical fighter forces to potential combat theaters in Europe and the Pacific. This has paid off in a dramatic way. We see evidence that the Warsaw Pact air forces, in response to modernized and upgraded NATO air forces, have changed their air strategy from purely an offensive posture to one that now considers the need for an initial air defense campaign.

Deterrence also requires an ability to deploy forces, equipment, and people rapidly to points in the world where our national interests are threatened. We have made considerable progress here as well as in procurement of the C-5B. The objective remains to achieve enough airlift to get the fighting forces of all of our armed services to where they are needed.

Another Air Force defense-wide responsibility is our space systems. Our national strategy includes assuring access to space and preserving passage through space for our systems in support of all forces. No single aspect of our activities has greater application to all aspects of national security on a day-to-day basis than our space systems. Through our space launch recovery plan we have established procedures to avoid future problems with the solid rocket motors, initiated procurement of a shuttle size Titan IV expendable launch vehicle, begun modifications for the smaller Titan II space boosters, and initiated development and procurement of a medium lift booster we call Delta II for our Global Positioning System Satellite.

We also have tried within congressional restrictions to offset a clear imbalance with the Soviet Union in antisatellite capability. As illustrated by these examples, our air forces have been rebuilt in support of clearly defined national strategy goals. Our forces today are consistent with that strategy. The only issue is risk. That is, faced with a Soviet threat that continues to grow quantitatively and improve qualitatively, any reduction in our own spending for defense increases the risk that we will actually have to face that threat.

If the budget trend of the past 3 years continues the risk is in fact likely to increase. You and the rest of the Congress will ultimately, through the authorization and appropriation process, determine the level of risk we will accept. In that light, it may be useful for me to review a few of the concerns we in the Air Force have with the 2-year budget currently before this 100th Congress.

We have seen over the past 6 years a remarkable improvement in the quality of our people. It is the more than 1 million members of the Air Force team, men and women, officers, enlisted, and civilians, who assure our success in supporting the Nation's defense objectives. Because of the support of this committee, of the entire Congress, and of the American people for the President's programs over the past 6 years, we have been able to assure a modest salary increase, improved housing and other quality of life factors, provide quality equipment, and improve working conditions. We must have quality people for the future. We must ensure adequate compensation, protect quality of life, and other incentives for our people to stay, and we must continue to reduce irritants.

The bipartisan record of the past 6 years is good, but we must keep it up. Failure to do so increases the risk of losing these experienced, motivated, and skilled people. It is false economy, for example, to spend up to $6 million to train a combat pilot only to have him leave after a period of time because we failed to spend a few thousand dollars to provide his family adequate housing. People are and will remain our most important single resource.

Second, we must continue to complete the strategic modernization program. That includes completing the planned buy of the 100 B-1B's and proceeding with the Advanced Technology Bomber. We need Peacekeepers, and our budget supports development of the rail garrison basing mode. We have also asked for funding to develop the small ICBM consistent with congressional direction.

The risk in the strategic modernization area lies in three areas. First is the increased risk to our strategic deterrent if we do not complete the bomber and ICBM modernization programs. Second, we continue to lag our planning requirements for tankers. Despite progress in modernizing the existing KC-135 force and adding capacity with the KC-10 we remain far short of meeting our minimum strategic and tactical tanker requirements identified by the CINCs. The third risk lies in strategic defense. In particular, as managers of a major share of the Strategic Defense Initiative research programs the Air Force supports that effort as essential to long term protection of our Nation.

In fact, it makes logical sense that the Department of Defense should spend about 1 to 2 percent of its budget searching for new non-nuclear defense solutions as a deterrence of nuclear war. As a third part of our modernization effort——

NON-NUCLEAR PROGRAM

Chairman NUNN. Mr. Secretary, you emphasize non-nuclear, but an important part of this program is nuclear. I keep hearing that word non-nuclear. What are these people working on the nuclear side going to think?

Secretary ALDRIDGE. That is only an option, sir. The primary objective is the non-nuclear defense for SDI, but that is an option being considered, but the focus is non-nuclear.

Chairman NUNN. Well, should we quit funding that?

Secretary ALDRIDGE. No, sir. The primary focus is non-nuclear.

Chairman NUNN. Why do we keep hearing it? We keep hearing the whole program described as non-nuclear. The President says non-nuclear. Then you come up with a budget request every year with an important nuclear component. It seems to me there is a real case being made just to drop the nuclear part of it.

Secretary ALDRIDGE. I think it is a lower priority in the budget process, but it is only being kept as a hedge against the failure of the non-nuclear defense.

Chairman NUNN. It might be good if you all said that every now and then.

Secretary ALDRIDGE. Yes, sir.

Chairman NUNN. If not, it seems to me there would be some people around here who would just conclude we ought to drop that part.

Secretary ALDRIDGE. Yes, sir.

Chairman NUNN. Go ahead.

READINESS

Secretary ALDRIDGE. As a third part of our modernization effort we are continuing our aggressive program to ensure our readiness to meet the threat. In fact, we have been successful over the past 6 years in achieving new levels of combat capability and readiness, a primary concern of the unified commanders. Thanks go to the bipartisan support of our armament procurement and flying hour budgets, which have raised air crew proficiency and increased weapons stockpiles. However, we have not achieved the levels which we need and which have been identified by the CINCs. We must continue to work this area to ensure adequate spares and munitions stock to sustain a combat capability and ensure a continuing high level of competence for our crews.

In airlift, despite our additional capacity, we are still behind the agreed upon requirement to support U.S. combat forces. Completing the C-5B procurement and initiating the buy of the C-17 will move us well along to addressing that requirement in a way that is most responsive to the needs of the combat commander in the field.

In tactical modernization, despite the advances in which we have prompted a strategic revision of the eastern bloc air plans we have had to revise our modernization plans. Thus, for the interim we have slipped our mid-term goal of building to the 40 tactical fighter wing equivalents in this budget period to work toward a modern force of 37 wing equivalents. That is important to note because in this area we are not meeting the unified commanders' needs.

The challenge, when we are compelled to meet our national security goals with a smaller force structure, is to make sure those forces are combat ready and are as capable as possible. For that reason, we must aggressively proceed with a continuation of the F-15 and F-16 to replace our aging tactical aircraft and the AMRAAM program, a missile which has proven highly successful in its testing program and promises significant force enhancements for our tactical air forces and strategic defense.

To stay ahead of the Soviet technical advances we must have the advanced tactical fighter. In fact, the ATF and AMRAAM are essential particularly if we are constrained to remaining within the smaller force structure.

In ensuring access to space we must continue our program to modify and build launchers which will assure a flexible, robust launch capability into the future. We must also, however, address the significant imbalance in antisatellite capability. The unilateral moratorium on tests must be lifted today as it benefits no one but the Soviet Union.

Finally, we have fully funded special operations, forces requirements for the three primary theaters, simultaneously. This comes in part at the expense of our tactical force modernization. However, I am concerned that further improvements at this time beyond what is in our budget would be detrimental to maintaining the proper balance across the spectrum of conflict.

We have succeeded in implementing national strategy with our modernization programs of the last 6 years, although our task is not complete. Let me conclude then with some comments on our reorganization, with particular reference to aspects of the Goldwater-Nichols Department of Defense Reorganization Act of 1986, we will implement the provisions of that act. Our review, assessment, and realignment of functions within the Secretariat are being finalized now, and I hope to implement these changes in the Air Force in the next few weeks, well ahead of schedule. We have two specific concerns, however. First, under the new organization with its emphasis on Unified and Specified Commands, I see clear conflicts between the immediate requirements of theater commanders in particular, and the DOD and service responsibility to address broader, global, longer term requirements in setting budget priorities.

In any event, someone will have to make those all important decisions on worldwide versus theater priorities. I anticipate this will be an area of major concern, and I caution against mortgaging the future for the present.

Chairman NUNN. May I ask a question there, Mr. Secretary? What in the Reorganization Act precludes the Secretary of Defense and the Chairman of the Joint Chiefs from taking a global look, balancing the interests of the CINCs and balancing the long term?

Secretary ALDRIDGE. Nothing, sir. They still have that responsibility. However, I think we will see the CINCs, having a stronger input, will emphasize meeting their own requirements, as opposed to the global. But there is still the participation——

Chairman NUNN. There is still discretion.

Secretary ALDRIDGE. Yes, sir.

Chairman NUNN. You are just saying that has got to be a balance that somebody at the top——

Secretary ALDRIDGE. Yes, sir it has to be balanced in the process.

Chairman NUNN. I agree with that. That balance has to be done, but there is nothing in the law that would indicate otherwise.

Secretary ALDRIDGE. Second, I anticipate significant problems, as my colleagues have mentioned, in fulfilling the joint service requirements set down by the new law. In the near term it is impossible for us to satisfy such joint tour criteria as training and time on the job without a lot of waivers. In fact, we cannot educate people fast enough to meet all of the requirements to fill all of the joint specialist spaces.

We would ask the Congress for understanding to ensure that the law is implemented in a consistent, logical, and efficient manner. Additionally, while joint duty is clearly a prerequisite for high level combat leaders, it is equally clear that it must not come at the expense of their operational expertise. That expertise is primarily derived from employing the forces of their own service.

In developing the joint duty list we must be careful not to penalize the operational specialist who actually employs forces in pursuit of a bureaucratic jack of all trades who thrives solely on the joint staff environment. One solution, as an example, would be to include key operational interface positions such as an air liaison officer with an Army division, in the list.

In conclusion, Mr. Chairman, over the past 6 years we balanced force modernization with readiness and sustainability, procurement and investment with operations and maintenance, and as a result, today's Air Force is the best manned, best equipped, and best prepared to support our national security objectives in our history. The fact is due in no small part and is a tribute to the work of this committee. Thank you for that support and for this opportunity to appear before you today. I look forward to working with this committee to preserve that capability, indeed, to expand upon it in our national interest.

Thank you, Mr. Chairman.

[The prepared joint statement of Secretary Aldridge and General Welch follows:]

Prepared Statement of Hon. Edward C. Aldridge, Secretary of the Air Force and Gen. Larry D. Welch, Chief of Staff, U.S. Air Force

MR. CHAIRMAN AND MEMBERS OF THE COMMITTEE:

Preserving peace, freedom, and independence is America's most fundamental national security objective. To meet this objective, the Air Force has prudently balanced forces and capabilities to deter aggression across the spectrum of conflict. Over the past six years, our program to redress serious shortfalls in force structure, weaponry, readiness and sustainability has been successful. Maintaining this momentum is essential to meeting continuing threats to national security. The FY 88 Air Force budget request will continue to improve these forces and capabilities.

Progress over the past six years includes significant improvements in virtually every mission area. Strategic modernization, including deployment of cruise missiles, increased Minuteman III accuracy, upgraded B-52 avionics, and initial operational capability of both the B-1B and the Peacekeeper missile, has greatly improved our capacity to deter the threat.

The combat capability of tactical air forces has been significantly enhanced. Pilots flying today's airplanes in the air-to-air role with improved missiles, spares and support are 50 percent more effective against today's threat than were their 1980 counterparts against the 1980 threat. Updated airborne warning and control systems can handle three times as many targets as earlier versions. Aircrews in air-to-ground combat can destroy almost twice the number of targets as in 1980. Added capacity, modifications and spares have improved airlift, and we can transport the equivalent of two additional light infantry divisions to Europe in the first ten days of a war.

Congress and the American people have supported improvements, but the current fiscal climate could lead to harmful reductions or even the elimination of programs essential to deterrence. The Soviet Union continues to develop military capabilities far greater than those needed for their own defense. Rapid production of advanced Soviet weapons, expanding global reach of Soviet forces and growing Soviet influence abroad pose major challenges for the US today and in the future.

US military strategy to cope with these threats rests on deterrence. Deterrence is assured when sufficient military capability exists to ensure an adversary no potential gain from an aggressive action against the US, our allies or friends.

A balanced Air Force program ensures that we, in conjunction with our sister Services, build and maintain the nuclear and conventional capability to respond to the spectrum of threats. The FY 88 Air Force budget prudently balances allocations within all mission areas to build, operate and sustain today's forces, while investing in future capability to meet the changing threat.

The effectiveness of our forces depends on getting the most from our resources, and people are our most critical resource. Accomplishing the Air Force mission depends on highly motivated and well-trained people to support our mission priorities. These priorities are to modernize strategic forces, improve readiness and sustainability of general purpose forces, increase airlift capability, modernize and expand tactical forces, and improve our ability to operate efficiently in space.

AIR FORCE PEOPLE

Today more than one million Active, Reserve and civilian Air Force men and women serve to maintain a strong deterrent and a secure nation. These members of the Air Force team are highly motivated, better educated, better trained and more productive than any previous time in our 40 year history. They are also staying with us longer. Quality Air Force people are the foundation of our warfighting capability. We receive an unquestionably high return from our investment in people.

Air Force excellence in the future depends on how well we recruit and retain quality people today. The officer or airman now entering the Air Force will have to acquire the skills to take the Air Force into the 21st century. Despite the increasingly difficult recruiting market, our quality standards have remained high. Addressing our people programs in terms of mission accomplishment and professionalism has led to high motivation, high retention and high productivity. A professional environment, adequate compensation and family support are essential to maintain the quality force needed for readiness--today and tomorrow.

Improved economic conditions and an expanded civilian job market result in increased competition for skilled people. The attractions of civilian airline expansion and employment opportunities in electronics, communications and computers, contrasted to the special demands of military life, make retention a continuing challenge. We must continue to focus our attention on our people and keep them on the Air Force team.

The Air Force and the nation cannot afford to return to the personnel crisis of the late 1970s when pay lagged far behind the civilian sector, benefits were eroding, and many of our people were leaving for better opportunities. Today, military compensation lags behind the private sector by 9.4 percent. The comparability gap reported for our civilian workforce last year was almost 24 percent. This is a critical issue that must be addressed now.

The lack of adequate permanent change of station reimbursements is also a critical personnel issue. For every $3 our people spend on a PCS move, they are reimbursed only $1. The Air Force has reduced overall PCS costs by decreasing the frequency of moves and increasing average time on station to nearly 50 months. Several recent initiatives have reduced operational moves, but when Air Force people must move, we must adequately reimburse them.

In keeping with efforts to curb the cost of defense, the Air Force will begin reducing military strength over the next two years by more than 6000 positions. While military manpower will be reduced, civilian manpower will grow, with an increase of 2800 over the next two years. Although the Active force will decrease by about one percent over the next five years, the Air Reserve Forces are programmed to grow almost five percent by FY 92, a direct result of our effort to move missions and activities to the Air Reserve Forces when it makes economic and operational sense. All components of the Air Force organize, train and equip as a team, and the Air Force aggressively supports the Total Force policy while maintaining a prudent balance to meet peacetime and contingency taskings.

Management initiatives and a tight rein on manpower requirements are paying dividends, but our ability to use limited resources effectively is constrained by arbitrary ceilings. The European troop strength ceiling is the most significant impediment to fielding USAF forces in response to the Warsaw Pact threat. At the same time, non-programmatic reductions in officer strength adversely affect the proper mix of manpower resources. Air Force manpower requirements are established to ensure the right people with the right skills are available to do the job. Arbitrary manpower constraints degrade mission accomplishment in the support base (supply, logistics, R&D) and reduce our qualitative edge in the operation, maintenance and support of quality equipment.

The implementation of the provisions of the Goldwater-Nichols Reorganization Act of 1986 are well underway, and many of the objectives have already been achieved in the joint arena and within Air Force headquarters. The intent of Congress is clearly to increase the authority of the Chairman of the JCS and the unified commanders. The Chairman has reorganized the Joint Staff for better net assessment, preparation of fiscally constrained strategic plans and increased emphasis on joint doctrine, tactics and exercises.

The Air Force has been a leader in providing quality officers for joint duty. We are implementing the joint specialty and improving our management of officers serving in joint assignments. Some of the technical aspects of the law are potentially troublesome, for example, mandatory tour lengths for all joint duty assignments. The Air Force will work with other Services, the JCS and OSD to identify those aspects requiring further legislative action.

In Air Force Headquarters, we will consolidate some functions to increase effectiveness and efficiency. Some functions specified by the law are already consolidated in the Air Force. Others, such as acquisition and comptroller, require reorganization in the Air Staff and Secretariat. This realignment will help us achieve a mandated manpower reduction in headquarters. Over the next two years we will reduce manpower in the Air Staff and Secretariat by delegating more authority to field commanders; however, the same law also levies a 10 percent reduction over the next two years in field headquarters' staffs.

STRATEGIC FORCES

Of all the threats to our national security, none is so potentially devastating as that of nuclear war. Therefore, the strategy and forces necessary to deter nuclear conflict will remain preeminent in our military structure. Restraint and negotiation characterized our efforts to reduce the threat of nuclear war during the 1970s. However, the Soviet Union focused on improving the quality and quantity of their strategic forces in a destabilizing buildup. The Strategic Modernization Program initiated in 1981 has begun to restore balance to the strategic forces. Our commitment to strategic modernization remains strong and sends a message of strong national resolve to the Soviets.

In 1983 the Scowcroft Commission reaffirmed the requirement for the modernization of land-based ICBMs and manned bombers. Since then, we have made significant progress improving ICBM capabilities. The Congress approved deployment of 50 Peacekeeper missiles in existing Minuteman silos and funded a comprehensive evaluation of additional deployment options for the second 50 Peacekeepers.

Peacekeeper is essential as the foundation for an affordable and credible deterrent force, adding prompt, highly accurate weapons to our strategic arsenal in the near term and enduring capability for the long term. In December 1986 the President selected the rail-garrison basing option for development as the next basing mode for the continued deployment of Peacekeeper missiles. The Small ICBM (SICBM) completes our strategic ICBM modernization program and contributes to deterrence and stability by increasing the survivability of the land-based missile leg of the Triad. The SICBM, compatible with survivable road mobile basing modes, has been approved for full-scale development in a single warhead, 37,000-pound configuration, transported on hardened mobile launchers.

Modernization of the manned bomber, the most flexible leg of the strategic Triad, is also proceeding well. The manned bomber's ability to hold at risk a wide variety of Soviet capabilities is vital to deterrence. In the near term, the B-1Bs will assume the penetration role from the oldest B-52s. Concurrently, research and development continues on the new, long-range, low observable, advanced technology bomber that will provide a viable penetrating capability well into the next century.

Two systems add to the essential elements of effectiveness and flexibility in the manned bomber force to counter continuing improvement in Soviet air defenses. The advanced cruise missile, incorporating low-observable technology, will avoid detection while penetrating Soviet defenses, and the aging SRAM-A will be replaced by the SRAM II.

Modernizing continental air defense forces and upgrading ballistic missile and atmospheric warning systems improve our strategic defense. Continued development and testing of an effective antisatellite system is necessary to counter the Soviet's existing capability to hold our vital space assets at risk. An ability to respond in kind is a prudent and necessary deterrent.

Upgrading command, control and communications (C^3) systems is one of our highest priorities in the strategic force modernization program. All strategic offensive and defensive programs are being linked by more survivable and enduring C^3 systems. We are improving our ability to alert and activate the nuclear retaliatory forces by continued development of the Ground Wave Emergency Network and the Milstar satellite system, as well as modernization of the command centers they serve.

We are also pursuing, in concert with the Strategic Defense Initiative Organization, research efforts that could provide a comprehensive strategic defense. Continued emphasis on the Strategic Modernization Program and on the development of defense technologies is key to equitable and verifiable arms control initiatives that seek to reduce nuclear arms, ensure a capable and credible deterrent, maintain security and promote stability.

THEATER FORCES

Highly capable, ready and sustainable conventional forces are an important element of US deterrent strategy. The Soviet Union continues to expand conventional forces, outproducing the US in every category of weaponry and gaining on our qualitative edge in many areas. In this regard, three US programs are particularly worthy of special attention owing to their contribution to conventional deterrence--the Advanced Medium Range Air-to-Air Missile (AMRAAM), the Low Altitude Navigation and Targeting Infrared System for Night (LANTIRN) and the Advanced Tactical Fighter (ATF). Continued procurement of F-15E and F-16C/D aircraft is also vital to modernize and expand our existing tactical air forces.

AMRAAM provides the capability to attack multiple targets during a single intercept in an electronic countermeasures environment. It provides launch and maneuver capability, giving our fighters the combat leverage and improved survivability needed to win air battles when outnumbered. AMRAAM will double the effectiveness of the F-15 at about four percent of the aircraft cost and will increase F-16 air-to-air combat effectiveness six times. For air-to-surface missions, near-term programs provide the much needed ability to attack targets at night and in poor weather to deny Soviet objectives and support the Airland Battle. LANTIRN provides a capability to locate and attack a variety of ground targets around the clock, eliminating an enemy's night sanctuary. The ATF will provide air superiority over current and projected enemy fighters. Supersonic cruise and maneuver, low-observable technology and advanced modular avionics will result in a lethal, survivable ATF that will provide the air cover essential to tactical air support of the Airland Battle.

In Europe, the Ground Launched Cruise Missile (GLCM) continues to bolster NATO deterrence of Soviet mobile systems. GLCM installations are operational in the United Kingdom, Italy, Belgium and West Germany, with the two final installations under construction in the Netherlands and the United Kingdom. These weapons are a major component of NATO's theater intermediate nuclear force.

FORCE PROJECTION

To defend interests worldwide, the US must be able to deploy combat forces rapidly where they are needed. No matter how good our equipment or how realistic our training, our combat forces can only be an effective deterrent if they get where they are needed in time.

Aircraft modifications, increased stocks of spares, and delivery of C-5Bs and KC-10s have increased airlift capability by almost 25 percent. Our FY 87 funding completes the buy of 50 C-5Bs, 60 KC-10s and the cargo-convertible features of the Civil Reserve Air Fleet. By the end of the decade, we will have nearly doubled the strategic airlift capability we had in 1980. Despite this improvement, we will remain significantly below our needed airlift capability.

Requested FY 88 funding continues C-17 development and procures the first two aircraft. The C-17 will modernize the strategic airlift force and provide additional theater capability to complement the C-130, while saving approximately $16 billion and 15,000 people over other airlift alternatives. For the first time, we will field a strategic airlift aircraft with the ability to deliver the full range of Army equipment directly where needed, even into small, austere airfields inaccessible to our current long-range airlift force.

We must also continue to increase our air refueling capability. Air refueling requirements are growing for all strategic and general purpose forces. New engines and additional improvements to the KC-135 provide a 50 percent increase in capability at a fraction of the cost of a new aircraft.

Working closely with OSD and the other Services, Air Force elements of the Special Operations Force (SOF) have been structured to meet theater commanders' requirements. SOF enhancements include additional AC-130s and MC-130s, modification of H-53s to a PAVE LOW III configuration and development of the CV-22. We will continue to modernize and expand SOF capability across the spectrum of conflict.

We must also deal with conflicts occurring below the threshold of theater warfare, such as regional conflict, insurgency and terrorism. Low-Intensity Conflict (LIC) is a broad term used to characterize conflict not involving direct confrontation between the superpowers. The Center for Low-Intensity Conflict, established with the Army at Langley Air Force Base, will increase understanding of this challenge. We are also developing an aircraft that will operate in a restrictive airfield environment common to LIC.

READINESS, SUSTAINABILITY AND INSTALLATIONS

The Air Force investment in force structure and modern weapon production can only be translated into a warfighting capability with adequate attention to readiness and sustainability. Modern, ready forces form the foundation of our capability to engage an enemy effectively at the onset of combat. Soviet perception that the US has the capability to respond effectively is essential to deterrence.

Our success in combat is dependent on a balance of sufficient force structure, modern equipment, well-trained personnel, effective repair facilities, sufficient spare parts, appropriate munitions and adequate fuel stocks. Our readiness goal is to provide the resources for fielded forces to perform their missions. Sustainable forces must have the staying power to fight through and beyond an initial period of combat. They depend on the nation's ability to replace resources consumed in battle.

Building and maintaining readiness and sustainability is a continuing process, requiring a prudent balance among spending areas to achieve realistic goals. The FY 88 Air Force budget request places a high priority on improving the combat readiness as well as the staying power of our forces. Although the pace will be slowed, our FY 88 funding request will enable us to increase spare parts stocks and equipment inventories for mobility and tactical forces, improve the inventory of modern munitions and train more effectively.

The condition of Air Force installations also directly affects combat capability. Runways, taxiways, aircraft shelters, missile silos, launch control centers and maintenance buildings must be ready to function during hostilities. Structures, such as medical facilities, military family housing, airmen dormitories, dining halls and community/recreational facilities, provide for our people's basic needs, contribute to their morale, welfare and productivity and help the Air Force retain quality people. The Military Construction Program

(MCP) funds in this year's Air Force budget have been carefully designed to support the mission requirements and readiness posture underlying the strategy, providing quality facilities to enhance productivity and to retain our professional force.

SPACE AND TECHNOLOGY

Across all mission areas, space systems are an integral part of the US military force structure. Since 1958, the US has relied increasingly on space-based systems to provide support to all Services in such vital areas as communications, weather, surveillance and warning, and navigation. The Air Force is responsible for organizing, training and equipping forces to use space to support our national security objectives. To ensure that the US continues to take advantage of the unique attributes space provides, the Air Force has developed a comprehensive long-term strategy.

The first element of our strategy is to develop and maintain assured access to space. The Challenger loss and mishaps to other launch vehicles last year highlighted the need for a more diverse approach to space transportation. The Air Force program is designed to ensure access to space regardless of single element failures in the space transportation infrastructure. Because of congressional support for our complementary expendable launch vehicle program, Titan IV, we are close to achieving that goal. Our initial launch capability is scheduled for October 1988.

Second, the Air Force is developing a long-term survivability enhancement program for space systems critical to national security. In addition, we are continuing development of enduring, integrated surveillance systems to provide the National Command Authorities with unambiguous warning of attack.

The Air Force Space Command has improved significantly the Air Force's ability to support and control space assets and associated ground-based elements. In September 1985 US military space assets were formally integrated into the unified command structure with establishment of the US Space Command (USSPACECOM). This command has consolidated operational control of US military space systems for joint use in wartime and is the focal point for identifying military requirements in space. The arrangement recognizes the fact that space forces, like land, sea and air forces, are best employed under the control of a single commander.

To ensure we continue to deter the Soviet threat, the Air Force is pursuing those technologies with the greatest potential military payoff. These include technologies designed to improve our industrial base, as well as programs identified by Project Forecast II offering the greatest potential for technological breakthroughs to enhance our deterrent strategy into the 21st century.

MANAGING RESOURCES

The Air Force recognizes the complex challenges from a growing Soviet threat and limited US fiscal resources available for defense. As stewards for the taxpayers' investment, we are committed to getting the most defense from every dollar.

The Air Force is meeting these challenges with a comprehensive, integrated approach to management, looking for new and better ways to get the most combat capability for our investment. Improvements include aggressive contract auditing to reduce acquisition costs, the Zero Overpricing Program, improved spare parts management, new approaches to quality and productivity, and improved reliability and maintainability of new and fielded weapon systems. These improvements create better combat capability, reduce operating costs and lower manpower requirements.

Our budget was developed considering a broad range of new acquisition management practices. Procurement procedures have been improved, and acquisition processes have been streamlined to ensure a more responsive system. Specific programs and procurement strategies include improving stability, baselining programs, increasing competition, using a second source when practical, breaking out components, employing should-cost reviews and work measurement standards, and ensuring quality through judicious use of warranties.

The Air Force is also becoming a much more demanding customer. The majority of our 100,000 contractors provide products or services as agreed upon; we hold accountable those who do not. To date, we have received $9.4 million in voluntary refunds for overcharges, and at one point last year, we were withholding more than $250 million in progress payments. Our aggressive Fraud, Waste and Abuse Program resulted in a cost avoidance of $1.1 billion in FY 86.

The Air Force goal for the future is to continue to implement the recommendations made by the President's Blue Ribbon Commission on Defense Management. In spite of the progress made, the Air Force recognizes the concerted effort required to improve the way we do business, to regain the public's confidence, and to continue to protect the investment in a strong defense that has been made over the last six years.

SUMMARY

The year 1988 will be crucial to our plans to continue force modernization and improve readiness and sustainability. The balanced approach will provide the combat capability essential to counter the threat. This year we will reach critical milestones in all mission areas. With congressional support, we will continue to ensure a favorable global balance of military power within the bounds of fiscal responsibility.

MAJOR MILITARY MISSIONS

Chairman NUNN. Thank you, Mr. Secretary. I have a question here that I want you all to take note of, and I will come back and get the answer later, because I would like for you to have a little bit of time to reflect on it. In last year's posture statement Secretary Weinberger identified the following six major military missions, and I quote the Secretary of Defense.

> The Department of Defense must maintain the capabilities to perform an array of key missions naming those missions: nuclear deterrence, defense of vital interests in NATC, Northeast Asia, and Southwest Asia, projection of the sea lines of communication, and power projection.

Now, each of you have your own services as your priority, and I understand that, but you are also top officials in the Department of Defense as a whole. You are in the process of deciding how the budget is going to be carved up, and what I would ask you after you think about it a little bit, and I will ask you on my second round, which of these missions as you view it from your—let us call it your ecumenical perspective rather than just service perspective, which of these missions has the greatest deficiencies and which of these missions, in your view, deserves the greatest resources to make up for those deficiencies?

Again, I will give you a little bit of time to think about that one.

AIRCRAFT CARRIER SAVINGS

Secretary Goodrich, you cited in your statement, I believe, the savings of $2 billion on the aircraft carrier, $3 billion. Is that right?

Secretary GOODRICH. That is correct.

Chairman NUNN. By buying them now while the people are there and the teams are together, et cetera.

Secretary GOODRICH. That is $3 billion total for the two ships.

Chairman NUNN. That is what you would have spent if you would have waited? You would have spent $3 billion more had you waited until when?

Secretary GOODRICH. That is correct. If we wait until our last year's plan which would fund the ships' advanced procurement in fiscal year 1992 and fiscal year 1994 to commence construction in 1994 and 1996.

Chairman NUNN. Now, is that the primary reason for funding the ships this year, is that budgetary savings?

Secretary GOODRICH. Yes, our reason for proposing the funding of the ships this year is that we can save the $3 billion; and on top of the savings that are available, a major factor is the aging of our older aircraft carriers, such as *Midway*, and the *Forrestal* class.

Chairman NUNN. Which is more important, the budgetary savings or the aging?

Secretary GOODRICH. They go together. One complements the other.

Chairman NUNN. Did someone make a miscalculation last year when you had the plan to start those in the 1990s? Is there somebody that was fundamentally off in the sense that those carriers are going to wear out before then and have to be replaced?

Secretary GOODRICH. No, we think those early carriers are going to wear out at about the same time. We considered the cost to maintain them in the last years before they are retired. Part of the tradeoff to start earlier on the two new carriers was the savings that can be accrued from getting those old ships out of service and replacing them with new ships.

Chairman NUNN. So it is mainly an economic or savings decision?

Secretary GOODRICH. Yes, we call it a business decision.

Chairman NUNN. In last year's 5 year plan, you planned to buy 926 fighter and attack aircraft. This year you plan to buy 545. So you have reduced your plan from 926 to 545 over the 5-year period. That is a reduction of 381 combat aircraft.

How much money is that going to cost in waste in terms of what could have been saved by higher procurement and also a lower per unit cost. Have you figured that?

Secretary GOODRICH. We have, Mr. Chairman. I cannot give you the number, but I can supply it for you.

[The information follows:]

Four tactical aircraft production rates are lower in this year's budget than that forecast in the FY 87 budget. They are the F-14, F/A-18, AV-8 and EA-6B. The question regards fighter and attack aircraft and, as such, excludes the Electronic Warfare EA-6B aircraft.

The reductions in AV-8Bs and F/A-18s in these years account for 364 of the 381 fewer combat aircraft. The remaining 17 aircraft were F-14s.

The total increase in cost caused by higher unit costs of these aircraft is $634 million.

To add additional perspective, while four aircraft production lines of the Navy's fourteen were lower, two production lines are higher and one new one has been added in the FY 88/89 budget.

Chairman NUNN. That is a rather large figure, too, is it not?

Secretary GOODRICH. Yes.

Chairman NUNN. Do you know whether that figure might exceed the savings on the carriers?

Secretary GOODRICH. No, I do not. I will supply that.

[The information follows:]

The approximate $634 million increase in total cost of procuring the 381 fewer fighter and attack aircraft at a lower production rate is much lower than the estimated $3.0 billion saved by buying two carriers.

Chairman NUNN. Would that not have been a relevant consideration before you decided to buy the carriers?

Secretary GOODRICH. Well, one reason for the reduction for the aircraft is that our experience now with the F/A-18 has been so much better than we had originally anticipated. We have reduced our estimate of the attrition rate out in those years. We feel that we will have sufficent aircraft. We are not going to lose as many as we had originally planned.

Chairman NUNN. Could you submit for the record then the number—in other words, you are saying you need 381 less aircraft. That is not just a reduction. You are not going to need those any time then, right?

Secretary GOODRICH. Our thinking at the present time is that we can live with that and still not reduce the number of naval aircraft in our carrier battle groups.

Chairman NUNN. Would you furnish that for the record?

Secretary GOODRICH. We will.

[The information follows:]

Reductions in the Aviation Procurement, Navy (APN) account were made for programmatic reasons.

F-14 reductions of 17 aircraft are possible because of a revised air wing standup schedule. With five revised air wings in FY 1993, the total F-14 requirements will be reduced by 30 aircraft.

AV-8B reductions of 74 aircraft were aircraft programmed as advanced attrition assets. All eight USMC AV-8B squadrons will have 20 aircraft assigned by the end of FY-91 as programmed in the 1987 Congressional budget.

F/A-18 reductions of 290 are possible because of a revised air wind stand up schedule (−30), reduced force level reduction from 30 to 24 squadrons (−107), reduced attrition rate (−35), advanced attrition assets (−73), and related reduction in training and pipeline requirements (−45).

Chairman NUNN. Senator Cohen.

Senator COHEN. Thank you, Mr. Chairman.

STOL AIRCRAFT

Secretary Aldridge, the Air Force report to Congress recognizes the threat to our interest from low intensity conflicts, as well as the importance of security assistance. But, in testimony last week, General Gorman said the following. He said:

> Anyone who travels in the third world appreciates that in most countries the sinews of nationhood include a fleet of rickety but still serviceable DC3 aircraft. We now have no American manufactured aircraft which is a modern equivalent of the DC3, the versatility of operations, simplicity of maintenance, ease of manning, and cost of operations. The current U.S. counterpart, the C130, is much too complicated and demanding for most third world countries, and we present C130s as we did to Chad a few years ago, we hang an economic millstone around their necks.

Would you comment on General Gorman's observations?

Secretary ALDRIDGE. I am not sure what his point is. I know there is a deficiency in STOL aircraft in those developing countries. As a matter of fact you will see the budget that has been submitted by the Air Force for fiscal 1988 and 1989 includes the procurement of 10 new STOL aircraft which we will compete. These aircraft will give us the required capacity with low cost of maintenance and high reliability, and good capability for those kinds of theaters.

I think that is perhaps addressing General Gorman's concerns that we had not, during his watch, included those kinds of aircraft in our budget. They are now included, five in 1988 and five in 1989.

ARMOR AND ANTIARMOR COMPETITION

Senator COHEN. Secretary Marsh, the Defense Science Board 1985 summer study on armor and antiarmor competition had some pretty sobering conclusions. Secretary Weinberger summarized the study by stating in the armor, antiarmor competition—I am quoting now—"Not only are we behind the Soviets, we are falling further behind at an alarming rate." The situation is "one approaching a matter of national urgency," according to Secretary Weinberger. And this conclusion, I think, was supported also in a report of 1986 by the U.S. Army, Analysis of U.S. Army Conventional Capability, which in essence confirmed that. There is nothing in your statement referring to the serious and growing deficiency in armor and antiarmor. Do you disagree with the Defense Science Board?

Secretary MARSH. Senator, one reason that that type of question was not addressed in the statement is because we were asked to confine our presentation to these areas that related to the Defense

Reorganization Act and our responsibilities. I would say that our needs in armor are directly related to budget requests and the failure to have the funding that we feel we need for production of vehicles like the M1 and the M2 Bradley put us in a difficult position because of the enormous quantities of armor that we find on the other side. There are some advances in armor defenses that you would find helpful, but are ones which I should not discuss in this forum.

Senator COHEN. I am familiar with some of the proposals designed to overcome the conventional deficiencies. They are also very expensive, and I doubt very much whether they are going to be included in your budget to ever arrive at their deployment in the near future.

Well, I will not go into that right now. Let me ask just one more question, Mr. Chairman. I am told that they are going to call this vote pretty close and not extend it beyond the 15-minute roll call, so one final question perhaps to Secretary Aldridge. Have you ever heard of a major weapons system whose planned field life is about half a decade, after which it would have to be replaced with a follow-on system?

Secretary ALDRIDGE. Have I ever heard of one?

Senator COHEN. Should we be spending tens of billions of dollars on proposed systems and have them replaced in about 5 years due to obsolescence?

Secretary ALDRIDGE. I am sorry. Do you have——

Senator COHEN. Let me be specific. There are some reports that an early SDI deployment would have about a 5-year life expectancy at which time it would have to have something to replace it. If my understanding is correct, I would call into question the wisdom of such a proposal in view of the restraints you gentlemen have been talking about.

Secretary ALDRIDGE. Sir, I do not know what an SDI system is today. We do not know what it is, and so I cannot comment on whether it has a 5-year life, a 10-year life or a 15-year life. And until we find whether it is feasible and we decide that we are in fact going to deploy such a thing, I think it has to have a sufficient life against a threat that it has——

Chairman NUNN. We are glad you clarified that.

[Recess.]

Senator LEVIN [presiding]. Chairman Nunn wanted us to proceed. Let me add my welcome to the Secretaries. I think you are all done with your statements if I am correct. I had to leave before you were finished.

Secretary MARSH. Senator, I would like permission to insert my written prepared statement in the record.

SHIPBUILDING PROGRAM

Senator LEVIN. Sure, that will be ordered. First, Secretary Goodrich, let me ask you some questions about the carriers which are the subject of some interest around here. First of all, in the 1988 posture statement that was just given to us about a month ago, we saw the U.S. shipbuilding program, the 5-year program, showing that no aircraft carriers would be ordered in fiscal years 1988 through 1992. I am wondering what has changed since then.

Secretary **Goodrich**. Senator, in the past year we have again reviewed our ship requirements and especially looking at the aircraft carriers, and due to the defense acquisition reform legislation, the Packard Commission initiatives, and the requirement to submit a 2-year budget, combined with our continuing analysis of the budget realities, it demanded a new careful scrutiny of the existing FYDP to ensure that the best investment plans were being pursued. In preparing the 1988–1989 budget review of long-range business investment strategies revealed that the best return on the top line Navy dollar could be obtained by restructuring the SCN account to accommodate the 15 deployable carrier goal through the further use of the innovative CVN acquisition program currently in effect.

The CVN series production and modular construction process now being used is demonstrating a dramatic cost savings resulting in efficient material acquisition profiles in the shipbuilding learning curves. The early below budget and on-time delivery of the *Theodore Roosevelt* last fall confirmed the downward cost predictions and fostered a mandate to continue a heel-to-toe acquisition plan. By paying now rather than later, we can take advantage of the empirical learning curve, sustain the CVN production capability now in being, and save the taxpayers an estimated $3 billion in then year dollars for 2 ships. By the reduction in the cost for the needed replacement carriers to $6.9 billion from $9.9 billion which we discussed last year, the proposed two additional ships following in proper continuity with the *Lincoln* and the *Washington,* takes maximum advantage of learning curve effects, uninterrupted procurement and lesser cost due to inflation.

Senator **Levin**. Is it fair to say that your assessment has changed over these last few months?

Mr. **Goodrich**. Very definitely.

Senator **Levin**. Why will not the Secretary of Defense acknowledge that?

Mr. **Goodrich**. I believe the Secretary of Defense is in accord with us on the two additional carriers.

Senator **Levin**. He will not acknowledge that anything changed in the last few months. He just sits there and says: Nothing has changed, nothing has changed. You sit there and say, very definitely it has changed.

Mr. **Goodrich**. Well, I guess you will have to ask the Secretary.

Senator **Levin**. You do not know the answer? Well, I do not either. If I did, I would try to provide it for the record.

You are aware, obviously, as to the process under which the Department has put together the budget each year. You receive guidance from the Secretary of Defense. You then make a proposal for the Navy's budget request that conforms to that guidance, and that proposal is the program objective memorandum.

Did the Navy's original program objective memorandum contain a request for the two carriers starting with funding in 1988?

Mr. **Goodrich**. No. We formulated our new approach to the two carriers later in the year, and that was not done early on.

Senator **Levin**. Now, if you are going to fund two aircraft carriers we will obviously cut back someplace else. One of the places where the Navy is cutting back is in combat aircraft production. You are cutting back on your planned production by 40 percent from last year's 5-year plan.

As I understand the numbers, if my figures are correct, last year your plan was to buy 926 combat aircraft from 1987 to 1991, and now you are planning on buying 545 combat aircraft, a whopping 381 aircraft less.

Why are you shortchanging your aircraft and slashing aircraft production in order to fund two carriers which just a few months ago we said we could safely order in the nineties?

Mr. GOODRICH. Well, part of the reduction and a very important part of the reduction in those aircraft is due to reductions mandated by the Congress.

Senator LEVIN. In those accounts?

Mr. GOODRICH. On those particular aircraft.

Senator LEVIN. We mandated specific reductions in this year's request.

Mr. GOODRICH. The 1987 request.

Senator LEVIN. We reduced your 1987 request, but did we reduce the out year numbers in our action last year?

Mr. GOODRICH. Yes, from 120 to 84.

Senator LEVIN. For what year?

Mr. GOODRICH. That is the out years.

Senator LEVIN. Which out year? That was just for 1987, I am informed. But in terms of the out years, what did we change there?

Mr. GOODRICH. Yes, it gets down to 84.

Senator LEVIN. Give me the figure that we wrote in for 1989, would you?

Mr. GOODRICH. Could I give you that information for the record?

Senator LEVIN. Sure. You can tell us what action you took last year that relates to the action we took, and also—well, that would be fine, because I do not agree with you on that. But you will provide that for the record?

Mr. GOODRICH. Yes, sir, we will give you the information.

[The information follows:]

F/A-18's reductions (Jan 86 request vs. Jan 87 request):

	Fiscal years—				
	1987	1988	1989	1990	1991
January 1986	120	132	132	163	163
January 1987		84	72	72	72

The fiscal year 1987 request for F/A-18s included a substantial build-up, coupled with a multi-year contract, to buy out the requirement in the most economic manner. Congress reduced the fiscal year 1987 buy from our proposed 120 to 84 aircraft, denying the multi-year contract. Navy responded to the congressional lead and reduced our fiscal year 1988/89 request across the FYDP.

These reductions are possible because of a revised air wing stand-up schedule requiring fewer F/A-18s (−30), a force level reduction from 30 to 24 F/A-18 squadrons (−107), reduced attrition rate (−35), and buying on a time-phased requirement basis vice ahead of need (advanced attrition assets).

Senator LEVIN. What costs, production stretch-out costs for instance, are we assuming and inflicting upon ourselves in exchange for the earlier starts on the carriers?

Mr. GOODRICH. Well, I do not think that we are changing our numbers by proposing to authorize the ships in 1988–1989.

Senator LEVIN. Let me give you some examples. We are cutting the actual production of the AV–8B's from 42 to 32, we are cutting the actual production on the SH–60B's from 17 to 7, we are cutting the actual production of the EA–6B's from 12 to 6, we are cutting the actual production on the F–14 from 15 to 12.

We are cutting planned production in lots of other areas. That is going to increase costs when you stretch them out. How much are we increasing the per unit costs on all of our stretch-outs, and how does that compare to what you say are the savings on the aircraft carriers?

Mr. GOODRICH. All right, I can supply that information.

Senator LEVIN. Oh, you do not have that? That would be fine, if you would submit that for the record.

[The information follows:]

The reduction of aircraft procured in the January 1987 request (fiscal years 1988–1991) increases unit recurring flyaway costs as follows:

Q/$M (REAL)

	Fiscal years—			
	1988	1989	1990	1991
EA–6B:				
Jan 86 [1]	12/23.5	12/24.0	12/24.5	12/25.1
Jan 87	6/26.1	9/25.0	9/25.5	9/26.1
Delta	−6/+2.6	−3/+1.0	−3/+1.0	−3/+1.0
AV–8B:				
Jan 86 [1]	42/15.9	42/16.4	42/16.9	22/18.3
Jan 87	32/17.0	32/17.2	15/20.8	15/20.7
Delta	−10/+1.1	−10/+0.8	−27/+3.9	−7/+2.4
F/A–18:				
Jan 86 [1]	132/18.9	132/19.0	163/18.6	163/18.6
Jan 87	84/19.8	72/20.5	72/20.6	72/20.7
Delta	−48/+0.9	−60/+1.5	−91/+2.0	−91/+2.1

[1] Jan 86 row shows Jan 86 quantities, current pricing.

When multiplying these increased unit cost deltas times the production quantities across the Jan 87 request, the approximate total increase in cost due to program stretch out is $675M. This increase in cost is much less than the $3B savings for new aircraft carriers.

F–14s and SH–60Bs do not enter into the above equation. FY–88 is the first year of limited production for the F–14D and the outyears procure a mix of F–14Ds and F–14 A to D remanufactures. SH–60Bs are procured with SH–60Fs at a rate of 24 aircraft/year total.

It is important to note that these reduced production decisions were made for programmatic reasons.

The FY87 request for F/A–18s included a substantial build-up, coupled with a multi-year contract, to buy out the requirement in the most economic manner. Congress reduced the FY87 buy from our proposed 120 to 84 aircraft, denying the multi-year contract. Navy responded to the Congressional lead and reduced our FY88/89 request across the FYDP. We were able to accommodate this lower acquisition profile because the reduced numbers were sufficient to fill operational squadron requirements because of the change in requirements which came about for two reasons. The actual attrition for the F/A–18 is lower than we expected and, by shifting to a notional airwing structure, our total need for F/A–18s was reduced.

Three other aircraft lines were lowered for programmatic reasons as well. F-14 numbers were reduced because a major modification to the aircraft (the "D" model) is in development along with a plan to remanufacture older A models to D retrofits as a cost saving measure. The AV-8B (not a carrier aircraft) procurement was lowered because selected squadrons were filled at 15 vice 20 aircraft with a plan to reach the 20 aircraft goal by 1995. The EA-6B profile was reduced because a major development program (ADVCAP) will be phasing in soon and this will minimize backfitting.

Senator **Levin**. I guess my time is up, so let me call on Senator Warner.

Senator **Warner**. You go right ahead, Senator.

Senator **Levin**. The President is asking for 3 percent real growth in the defense budget. At the same time, the Air Force is proposing to reduce the general purpose conventional force structure. Would you tell us why, in light of the increase that is being requested in the overall defense budget, the Air Force is proposing to cut its conventional force structure?

Secretary **Aldridge**. The increase between fiscal year 1987 and 1988 includes 3 percent for DOD as a whole. That is significantly below what the 1988 column of the President's 1987 budget would have been. And the projections beyond 1988 into the out years were significantly higher in last year's budget as it was submitted to Congress in fiscal 1987.

The cuts between the 1987 PB for the Air Force and the 1987 appropriated position was in the order of $10 billion. From the 1987 President's budget, the 3 percent growth would give us more funds than we now have in 1988 and the out years.

And so, when we look at our sets of priorities, which include strategic modernization, readiness, sustainability, airlift, and then fifth on that priority list is tactical air modernization: It is the last on our priority list and so we have had to cut somewhere to meet those budget reductions.

Senator **Levin**. Where is that priority list?

Secretary **Aldridge**. It exists in my posture statement for the Congress. It exists in the Defense Guidance as part of the Air Force plan.

Senator **Levin**. Your posture statement flat out states that you have a higher priority for strategic than you do for tactical air modernization?

Secretary **Aldridge**. That is correct, sir.

Senator **Levin**. Thank you. Thanks a lot.

Chairman **Nunn**. Senator Warner.

CARRIER PROGRAM

Senator **Warner**. Mr. Chairman, I understand in my absence there was some discussion with the Under Secretary of the Navy about the carrier program. He is going to reply to certain inquiries, but absent the authorization this year to go forward with these carriers, which are replacements—initially that fact was not made clear, but I think it is now clear—what is the alternative for the Navy and for the United States?

How much longer could you hope to stretch the tired legs of these two carriers, which have ages now of over 40, am I not correct?

Mr. Goodrich: Age 40, yes.

Senator Warner: What are the exact ages?

Mr. Goodrich: *Midway* was commissioned in 1945 and she will be over 50 years old when she is retired. That is the present plan. The *Forrestal*-class, which has not been determined yet, would be 50 years old when she is retired.

Senator **Warner**. 50 years old.

Mr. **Goodrich**. And I certainly agree with you that they are and then will be very tired.

Senator **Warner**. Is it fair to have our service persons serving aboard ships that are 50 years old?

Mr. **Goodrich**. Well——

Senator **Warner**. Is it fair? Is it safe? Do the Soviets have any ships which are 50 years old?

Mr. **Goodrich**. Not to my knowledge.

Senator **Warner**. Not to my knowledge.

Mr. **Goodrich**. I do not think that there are any that are probably over 25 years old.

But in fairness to the ships force, the SLEP programs that those ships have gone through certainly addressed the safety and the welfare of personnel on board the ships. I think we have done a good job, and up to the time of proposed retirement I certainly would say that they will be safe for those people.

Senator **Warner**. Now, the Secretary is absent today because of his decision—and I had a similar decision to make several times during the Vietnam War, when I quickly left Washington to go and join a ship when its deployment back home was curtailed.

Did you have any other carrier that could have taken the place of the *Kennedy* in this instance?

Mr. **Goodrich**. Not in the immediate vicinity.

Senator **Warner**. Are you stretched as thin as you possibly can with the existing commitments?

Mr. **Goodrich**. Yes. The *Nimitz* battle group is already there on station in the Mediterranean, and of course the *Kennedy* had finished its 6-month deployment and was literally headed out of the Mediterranean for home when the order came back to turn around and go back.

Senator **Warner**. So you are at the limit of your commitments today with the existing carrier force.

Mr. **Goodrich**. Yes.

Senator **Warner**. And if we were forced to retire two ships because of aging, this would further curtail the ability of the Navy to fulfill the U.S. commitments?

Mr. **Goodrich**. That is right. And of course, our proposal for the two additional CV's at an earlier date than was discussed last year is not only because we think that the tiredness of the ships is getting serious, but also because of the increasingly high costs to maintain them and keep them combat-ready.

Senator **Warner**. Perhaps you will have an opportunity to talk to Admiral Trost this afternoon and he will be able to supply some of the information that was sought here today in his testimony tomorrow.

HELICOPTER PROGRAM

If I might turn to the Army now, as I understand we have not covered the helicopter program. I wonder if you would give us generally what you plan for this fiscal year and how that plan differs from what you had originally anticipated in your earlier POM planning, Mr. Secretary?

Secretary **MARSH**. Well, Senator, I would put in the record the projected purchase of all of these aircraft. I would say that as we originally approached this year we would have continued to produced in fiscal year 1988 and in fiscal year 1989 the Apache helicopter. However, we will buy out the Apache production at about 593 aircraft, as opposed to the proposed 675 that we anticipated. You will not find their Apache funds in fiscal year 1989.

[The information follows:]

HELICOPTER PROGRAM

The following chart depicts the major fiscal year 1988 Army Aircraft programs requested in the fiscal year 1988/1989 President's Budget (PB) and the changes occurring to them since the previous Program Objective Memorandum (POM):

[Dollars in millions]

Program	Fiscal year 1988 PB request	Difference fiscal year 1988/1992 POM
RC-12	$45.5	$ -25.5
Quantity	3	-3
EH-60	$30.3	$-86.2
Quantity	0	-11
AH-64	$642.3	$-121.6
Quantity	67	-11
UH-60	$408.9	$-13.8
Quantity	61	0
UH-60 (Mods)	$33.8	$+17.2
OH-58D	48.1	-133.7
OH-58C	37.0	+37.0
SOF Aircraft	121.8	-24.9
Spares	512.1	-203.7
Aircraft Survivability Equipment	80.7	-6.9

Senator **WARNER**. You said it was an over 600 program. At one time, as I understand it, it was a program of 1,000, close to 1,200 helicopters.

Secretary **MARSH**. I think the number that the Army could have originally used was a figure of 1,200, but the procurement program that was settled on in the Army Plan was 675. If you look at——

Senator **WARNER**. Well, I think the concern that some of us have is whether or not the LHX will come on line within a time period to enable you to keep up your requirements for this type of equipment.

Secretary **MARSH**. Well, of course, I think one of the major driver of the inability to have the helicopter lines open that we would like in the current years is affordability. That is why it has dropped. That is why the AHIP was terminated at 135 aircraft and zeroed out in future budgets.

The LHX probably will not come on line until about fiscal year 1994 or fiscal year 1995, Senator, and that it will be available several years later than we had anticipated a year or two years ago. So there will be a gap in the helicopter production lines, as you pointed out.

Senator WARNER. Can you accept that risk, because you had made some of these decisions on an earlier IOC for the LHX?

Secretary MARSH. We will continue to produce the Blackhawk and we will continue to upgrade the Cobra. True, we would, if we had our preferences, continue to produce additional aircraft such as the Apache, and bring the LHX on sooner. It is simply a question of affordability and I would say sir, that the Apache line is a line that we are looking at from the standpoint of what might be the options that are available, and they are being considered now.

Chairman NUNN. I could not hear that last part. The Apache line?

Secretary MARSH. We are looking at the Apache line from the standpoint of whether or not some method might be found in order to keep a warm production base.

Senator WARNER. Because that is a sheer dropoff at this time under the budget for 1988, and you could lose a well-trained base there for future production and future competition in the LHX.

Secretary MARSH. It would be very helpful if we could continue that line, and I would say to you that there are some discussions currently in the Department of the Army addressed to that end, sir.

Senator WARNER. And that would require an amendment in your 1988 program?

Secretary MARSH. Yes, sir.

Senator WARNER. Thank you.

Chairman NUNN. Senator Wirth.

Senator WIRTH. Thank you very much, Mr. Chairman.

Gentlemen, thank you very much for being here today. Secretary Marsh, it is good to see you again. I look forward to working with you.

And Secretary Goodrich, I am sure that there are a number of naval facilities in Colorado that we will be discussing over the coming years. And Secretary Aldridge, I look forward to working with you. We are scheduled to get together in the not distant future in Colorado.

AIR FORCE PROGRAMS AND NASA

What I was hoping I might do was ask you about the relationship between Air Force programs and NASA. I spent 12 years in the House, as you know. I was a member of the Committee on Science and Technology, which had jurisdiction over NASA.

One of the areas that we spent a good deal of time trying to understand and to work out was coordination between the Air Force and NASA. A couple of years ago, as I remember, we came to the policy direction which suggested that NASA and the Air Force would cooperate on the use of the shuttle and that behind that as a backup there would be built some 10 to 20—I have forgotten the number—of expendable launch vehicles.

I think that is an accurate portrayal of the agreements that we reached. And as part of that, it was my understanding that the Air Force was concerned about having an alternative capability to Johnson Space Center in Houston for controlling the shuttle. In case of any kind of problems in Houston, there would be an alternative facility. The facility would also be more secure than that which could be offered by Houston.

That is generally the agreement which had been reached between NASA and the Air Force on the development of an alternative shuttle operation center, is that correct?

Secretary ALDRIDGE. That is correct.

Senator WIRTH. What I now notice is that the alternative center has been dropped from the budget. The shuttle operation and planning center has been canceled, at the same time that the Air Force is coming back to us with a request for a heavy launch vehicle.

That is all consistent with your understanding of where the budget is today, right?

Secretary ALDRIDGE. Yes sir.

Senator WIRTH. It seems to me that that raises an important issue. Either the Air Force has determined that it no longer needs a secure facility to manage classified payloads or, it has decided to move away from a dependence on the shuttle and instead move toward a larger payload.

I would like to get your reaction to that statement, and if you can then tell us how decisions were made in this area between the Air Force and NASA? Were these decisions ultimately made by the Air Force? Were they made by the Air Force with NASA? Were they done with the refereeing of OMB or the White House?

Could you give us a sense of how this change in policy decision was made?

Secretary ALDRIDGE. Yes, sir, Senator. That is a long question. I hope I will not give you a long answer.

Senator WIRTH. Well, we have a record we could leave open for that, too.

Secretary ALDRIDGE. The requirement we had for a backup capability for the shuttle operations has certainly not gone away. It becomes one of affordability. As a result of the Challenger accident that occurred just slightly over a year ago, the re-evaluation of the shuttle in terms of its performance, in terms of its anticipated flight rate once it starts flying again—and hopefully that will occur about a year from now—that the number of flights that will in fact be available for the shuttle fleet will be substantially lower than that which was anticipated at the time that the Shuttle Operation and Plannng Complex (SOPC) was envisioned.

At the time we came to an agreement with NASA, the planned flight rate was 24 flights per year, of which the Department of Defense would have at least eight of those or one third. That was part of the agreement that we came to with NASA.

It actually was going to probably grow beyond that to 9 or possibly 10 a year. At the 24 percent rate, the shuttle complex at Houston's Johnson Space Center could not handle the workload necessary to handle eight DOD flights per year with the security requirements that resulted. That meant that they would have to build significantly larger facilities at Houston to handle it. And they really weren't designed to handle classified payloads as part of the NASA environment.

The SOPC, which was then planned for about a 1991 or 1992 operation, would in fact take that load off of NASA and have the Air Force fly the shuttle missions from Colorado Springs, the 8, 10 shuttle missions per year.

With the rate that the shuttle has gone to, or at least anticipated, something on the order of 12, 15, or 16—we really do not know until that confidence level is built back up in the shuttle flights—the rate is significantly lower for DOD missions than was anticipated at 24.

Senator WIRTH. So you will fill that gap with expendable launch vehicles?

Secretary ALDRIDGE. That gap will be filled with expendable launch vehicles. It also permits Houston, which would have then flown something like 16 flights a year from Houston alone, to absorb the load of the Department of Defense without a major impact upon the operations of Houston.

It would not solve the backup, which we still need. But at least it is a way to fly the shuttle for military missions.

Senator WIRTH. What happens to your need if you are using expendable launch vehicles for putting up various satellites? What happens to the question of security in terms of——

Secretary ALDRIDGE. The expendable launch vehicle. All the processing of those are handled at the launch complex itself. The operations that are handled in manned flight are significantly different. When the shuttle flies, it would have flown from Kennedy or it would have flown from Vandenberg.

The flight is basically launched from the launch facility. When the shuttle clears the gantry, its flight shifts to Houston for flight control at that point or it would have shifted to SOPC if SOPC had been deployed.

The expendable launch vehicle operations are significantly different. All the launch and flight operations are handled at the launch site itself. There is no shifting from these facilities, and there is redundancy there through launch pads, several launch pads.

Senator WIRTH. So you have decided to cancel the shuttle operations and planning center, but are coming back to us—the other part of the question which we did not get to—with a request for significant amounts of funding for a much larger launch vehicle?

Secretary ALDRIDGE. The heavy lift launch vehicle, which is in the 1987 emergency supplemental to begin the technology, not the design but the technology, for a low-cost, heavy lift vehicle.

Those would be unmanned. They would not require Houston or the SOPC for launch operations. They would be an unmanned vehicle that would be supported out of the launch base, wherever it is launched from.

Senator WIRTH. Mr. Chairman, my time has expired, but I have asked quite a lengthy question of the Secretary and I was hoping we might leave the record open and you could go back and fill out the answer to that. I realize that is a very long and complicated question.

Secretary ALDRIDGE. Yes, sir.

Senator WIRTH. If you could also add as part of the answer how the facility that was originally planned for shuttle operations and planning will be transferred over to the national test facility.

Secretary ALDRIDGE. Yes, sir.

Senator WIRTH. I understand that transfer will happen, and I would be interested in what your plans are for that.

Secretary ALDRIDGE. I will be glad to do that.

Chairman NUNN. We will leave the record open. But also, if you want to complete, we would not want to cut you off. Have you completed your answer as of now?

Secretary ALDRIDGE. Yes, sir. I think that basically the plan for the SOPC was unfortunate. The requirement still exist for the backup facility, but we cannot afford it under the current budget environment. As for the space that we planned to use for the SOPC, it will be used by SDI, the national test bed, and so there would be no impact upon the operations at the Falcon Air Force Station as a result of this change. We'll just continue with that particular program for the SDI.

Senator WIRTH. And again, you can address for the record the process by which you worked with NASA and worked with the administration to come up with that.

Secretary ALDRIDGE. Well, let me just address that. There is a lot of misunderstanding in the open about a confrontational attitude that may exist between the Air Force, Department of Defense and NASA. Let me just say that does not exist.

There is some controversy that occurred during the process of us strongly supporting the need for a complementary expendible launch vehicle program for the country about 2 years ago or a little bit more than 2 years. That did result in some bitterness between NASA and the Air Force because NASA strongly supported the shuttle program, and we felt strongly that we needed a complementary ELV.

The working level, however, between NASA and ourselves is extremely good. It works very, very well in the field. There is no confrontational issue any longer. That issue has gone away. In fact, we are working very closely, in spite of what you may read in some of the newspapers, on the technologies for the heavy lifter.

We have been working, in fact, in the last 2 years on the shuttle, on the space transportation architecture studies, where there is a joint study between ourselves and NASA, looking at the technologies not only with a heavy lifter but possibly a manned shuttle follow-on system. It could be based upon the National Aerospace Plane or some other concept. We are working very, very close together. We have an integrated technology plan to do that. I think the actual working relationship between the Department of Defense, Air Force, and NASA is extremely good, in spite of some of these controversies you may hear about.

Senator WIRTH. Thank you, Mr. Chairman.

Chairman NUNN. Thank you, Senator Wirth.

Senator Quayle, I believe.

Senator QUAYLE. Thank you very much, Mr. Chairman.

Gentlemen, welcome. It is good to see you all again.

SSTS (SPACE SURVEILLANCE AND TRACKING SYSTEM)

Secretary Aldridge, let me direct my first question to you concerning the SSTS. I was out at Colorado Springs recently, and your people out there were very, very helpful and gave us some very good briefings. One of the things that I was very much interested in was how far along and what kind of a priority there is on getting deployment options on SSTS.

I think that the space surveillance and tracking capabilities really need to be modernized. That is one of the things that I think is lacking, and I was glad to see it in your statement. I wonder where we might be as far as the deployment of a block I Space Surveillance and Tracking System. Where do we stand on that?

Secretary **Aldridge**. Senator, the problem I have with addressing that question is that General Abrahamson now runs that program as well as the boost phase surveillance and tracking system which shifted to the SDI program. The Air Force only acts as an agent in the development through the Space Division for that program.

Senator **Quayle**. You still have a major requirement for that, and I am sure the communication between the Air Force and SDI is good.

Secretary **Aldridge**. Yes, sir.

Senator **Quayle**. What kind of a feel do you have for, let me say, SDI fulfilling that requirement, which is a vital requirement from my prospective with the Air Force?

Secretary **Aldridge**. The SDI has the primary requirement for it. If the SDI system is going to field some space-based surveillance and tracking system to support the SDI mission, it will more than adequately support the Air Force mission.

The concern we have, of course, is to when that program will in fact come into being, and will it come early enough to meet our requirements.

We are working closely with SDI to make sure that will occur. Right now, the Air Force has no specific concrete program in that area. It all belongs to SDI, and we are, of course, implementing the program for them but monitoring the Air Force only requirement. We have no program in our budget to support a space-based surveillance system.

ATF AND ATA FIGHTERS

Senator **Quayle**. OK. Let me ask Secretary Aldridge and Secretary Goodrich on how we are getting along on the two fighter programs to get continuity, compatability, interoperability?

As you know, with the limited resources that we have, it is imperative that both the Navy and the Air Force feel comfortable with ATF and the ATA fighters so that we do not get into having four planes instead of two.

Secretary Aldridge, you look ready to bat that one out of the park. Maybe I should have phrased it differently.

Secretary **Aldridge**. You can see my enthusiasm.

Senator **Quayle**. I welcome your response.

Secretary **Aldridge**. Yes, sir. We are quite elated with our progress on the Advanced Tactical Fighter. Without going into the details in this open hearing about the programs, let me make clear that the two programs have different missions. The Advanced Tactical Fighter is, in fact, an air to air airplane, and the Navy's Advanced Tactical Aircraft is an air to ground airplane, so the two are completely separate missions.

We have people assigned to the ATA program and Navy people are assigned to the ATF. As a matter of fact, I believe next week Secretary Lehman and I are going to be briefed jointly on the status of both programs, so we are working together on the program to make sure that wherever there are components that can be shared, we will share them.

There will be those cases where it is clear that the two programs must be different. But we are trying to achieve to the maximum extent possible a commonality of components and equipment in the aircraft recognizing that they perform different missions and are on different time scales. You can be assured that there is a commonality group that works those programs together, and that it has received the full support of myself and Secretary Lehman in making sure that we are working as close together as we can.

Senator **Quayle**. How would you say that the way we are working on the ATF and the ATA compares to how we worked on the F-14, F-15, F-16, and F-18 and how we are not going to get ourselves in a situation to get both the air-to-air and air-to-ground requirements for each service, that you will end up requesting two planes for each service rather than just one for each service that can have this interoperability?

What are we doing differently besides the instructions from the Congress on a year-to-year basis? Procedurally, do you have this set up that much differently that you feel you are confident? I know you cannot go back. You were not necessarily there, but certainly somebody has institutional memory.

Secretary **Aldridge**. Well, we have established our set of requirements for the air-to-air mission, and we have a program laid out. It is a very well-defined program with competition between two different companies, who have formed two different contractor teams, building two prototypes each. We know exactly what we want to do.

The Navy has established their requirements to perform the air-to-ground mission, but I cannot go into the details of those missions because it is inappropriate here. We are working together to make sure that both programs are integrated to the point that if we would need in the long term an air-to-ground capability, our intent would be to consider the Navy's ATA program to do that job. It is a different mission from the ATF's mission. It is inappropriate to use the ATA to do the ATF mission and vice versa.

It looks like the way we are proceeding, that if the Navy needed an air-to-air capability for the future as a follow-on to the F-14 or F-18, they could use the ATF derivative, and we could use the ATA derivative for our purpose. That is two airplanes, not four, and that is our intent. That is how the programs are designed, to make sure that we have those common interest incorporated now into the programs without having to say, oh, my God, we have to change this sometime in the future.

Senator **Quayle**. Let me ask just one quick question and hopefully get a very quick response. Dr. Cooper said last year that the

CMAG program would be ready for full-scale engineering development by fiscal year 1988. Do you see that target being met on that very important program?

Secretary **Aldridge**. You have me at a loss.

Senator **Quayle**. That is the Cruise Missile Advanced Guidance for accuracy, the advanced guidance for the cruise missile.

Secretary **Aldridge**. I personally do not know, sir.

Senator **Quayle**. Could you check on that? I think that is a very, very important program, and particularly as we look to what cruise missile capabilities are needed for any kind of so-called surgical strikes and things of that sort rather than risking manned platforms. I think you will agree that, at least from our perspective, it is a very important program.

Secretary **Aldridge**. I think it is on track, but I would have to give you that for the record.

[The information follows:]

Cruise Missile Advanced Guidance [CMAG] Program

The technology demonstration of the CMAG capability should be completed by the fourth (4th) quarter of fiscal year 1988. The technology will be ready for transition at that time if sufficient funding is available.

Senator **Quayle**. I asked Dr. Cooper, and he said it would be fiscal year 1988. I wonder if you can clarify that for us.

Thank you very much.

Chairman **Nunn**. Thank you, Senator Quayle.

Senator Shelby.

Senator **Shelby**. Thank you, Mr. Chairman.

HOMEPORTING

Secretary Goodrich, I would like to talk with you just a few minutes and ask you some questions about homeporting. It is February 1987. Where are we at this point as far as homeporting is concerned? On what kind of a track are we?

Mr. **Goodrich**. Senator, we are on the track that we planned last year. Of course, we are very interested in what the Congress is going to do for us in the future. We are proceeding with work out at Everett, Washington. We have some problems with environmentalists and so on with respect to dredging. Also we have a similar problem in San Francisco.

The program is proceeding, and it is our plan to assign those ships to those ports as we have presently put forth.

Senator **Shelby**. As far as my home State of Alabama, in the Mobile area, what is going on in that direction as far as the tracking?

Mr. **Goodrich**. As I recall, Mobile is a recipient of at least two of the ships. I do not have the exact count, but it is right on track.

Senator **Shelby**. Can you furnish this to my office or to me, up to date exactly where we are and what we are going to have to do to bring it home?

Mr. **Goodrich**. I would be very pleased to do that.

[The information follows:]

STRATEGIC HOMEPORTING

The Strategic Homeporting program is progressing much as expected, with some minor program changes necessitated by congressional action. The program is on track and, assuming continued support by you and the rest of Congress, the homeports will be ready to receive the new ships that will bring the 600-ship Navy to fruition.

Specific information on Mobile follows:
Ship Complement: 2 FFG-7, 2 DDG-51, 1 MHC (NRF).
Major Milestones:
SECNAV designated as "preferred alternative"—2 Jul 85
Final Environmental Impact Statement—16 Jan 87
Corps of Engineers permit—Oct 87
SECNAV Record of Decision (Estimated)—12 Mar 87
Ships arrive—(1) DDG, (2) FFG (FY-91): Oct 90; (1) MHC + (1) DDG: FY-92
Economic Factors (estimated impact):
Increased population:
Military—1550
Civilian (not dependents)—330
Annual payroll—$34M
Spent locally—$11M
Spin-off jobs—1500
Ship repair payroll—$24M
Private sector jobs—780
Local Contribution:
$30 million from city (waterfront work)
Port Authority has bonding authority (money available).
Land and access
Various quality of life and infrastructure assistance
Memorandum of Agreement (MOA)
Close to final MOA.
Land Acquisition:
Donation of approximately 200 acres accepted by SECNAV 12 Jan 87.
Environmental Issues:
Due to contaminated landfill and associated problems at Pinto Island site, site shifted to Theodore Industrial Park site.
No environmental problems at new site.
Switch in sites did not adversely impact planning process.

MILCON Program

	Millions
FY88	$10.7
FY89	19.7
FY90	5.4
Total	35.8

AIR FORCE AND NASA

Senator SHELBY. Secretary Aldridge, as far as the cooperation of NASA and the Air Force in dealing with space, what kind of relationship does the Air Force have with NASA, say, at Marshall in Huntsville, AL? Do you know what they are doing?

Secretary ALDRIDGE. We have no specific relations there other than the fact that Marshall was the key developer of the Shuttle program, and we have worked with Marshall in the recovery effort. We have no active program with Marshall at this point in time.

Senator SHELBY. Of course, the Army Ballistic Missile Command is in Huntsville, but that is the Army; correct?

Secretary ALDRIDGE. That is right.

Senator SHELBY. Mr. Chairman, that is all I have at this point.

Chairman NUNN. Thank you, Senator Shelby.

Senator McCain.

Senator McCain. Thank you, Mr. Chairman. I want to thank the Secretaries for being here today. I appreciate their important testimony.

HELICOPTER PROGRAM

Secretary Marsh, I understand that Senator Warner has already asked you some questions concerning the Army's plan for its helicopter forces into the next century. I would just like to comment that I was really astonished to see that the Army requested 675 Apache helicopters, whereas the original request was 1,206.

As you may remember, my predecessor, Senator Goldwater, was concerned about the viability of the Apache helicopter, and those concerns were satisfied because of the numbers of helicopters which were going to be purchased. Now we find that number changing rather dramatically.

Were there some gross miscalculations on the part of the Army or did budgetary reasons intervene. Increased funding for SDI and a decrease in the Army portion of the budget have driven a decision which can seriously degrade the United States Army's ability to function on the battlefield.

The so-called LHX is very ill defined at this point. It is my impression that we have not decided whether it is one person or two persons aircraft. The state of rotor technology is unclear, and, at best, given past history of new weapons systems, it may be at the end of the next decade before the LHX would be operational.

Mr. Secretary, my first question to you is: Would the LHX replace the Apache? This was not my impression.

Secretary Marsh. The LHX will have a dual mission, one version will perform the light attack scout mission and the second version will perform utility assault missions. It would not wholly replace the Apache, but what it would seek to do is to give us a new and modern aircraft. In effect, as far as the attack version, it would be a follow-on aircraft, in the same manner which we have been discussing the Air Force and Navy aircraft because we felt in the helicopter world it was the same requirement for follow-on capability.

In the same manner, the Apache has not completely replaced the AH-1 Cobra or the upgraded version of Cobra, which still has considerable utility. I happen to agree with you that it is the type of a weapons system that is very essential, and I would also say Senator, what is driving us is funding. The fact that we were talking of programming to 675 AH-64's was a funding consideration, and the decision to produce or to cut out at 593 is a result of funding limitations. So we are now talking about appropriations. If we can get the additional appropriations, we will build the additional AH-64 aircraft.

Senator McCain. Mr. Secretary, if you want to get the funding, it is very helpful if you request it, and this budget does not request it.

Would you make the same decision on the AH-64, given the requirement for capital investment? By the way, I would appreciate very much your coming to visit the McDonnell-Douglas facility.

Secretary Marsh. I am aware of it. I spoke at the dedication of that facility, Senator.

Senator McCain. I wonder if, given the numbers that we now contemplate, we would have justified that kind of investment. I think it is something that we are going to have to look at it.

I also would like to point out, Mr. Secretary, we are told that 350 Apaches were needed for the National Guard. Will front line troops be equipped with the Apache? What has driven that change?

Secretary Marsh. I think you will find some Apaches going into the National Guard because our rule is that our units who are first to fight will receive the most modern equipment. I am not certain that you were here during the entire dialogue that I had with Senator Warner. I pointed out to him that there were discussions which were ongoing currently inside the Department of the Army with reference to how we might be able to possibly retain some type of a warm production line on the Apache. Our concerns about it are the same as yours. You did not find it budgeted because of what happened after you took the top line of the Army dollar or the defense dollar down. When we went through that DRB process we got a decrement. We had to take that decrement somewhere, and that is where the decision was made to take this.

Senator McCain. I understand, Mr. Secretary, and I do sympathize with your plight. We are asking Congress to find the funding, and that makes it a lot more difficult when it is not requested.

I would just like to mention one other fact for the record. As I understand it, the AH-64 can carry 16 Hell fires, and the LHX as contemplated can only carry four. I think that can have a significant impact on the battlefield.

Secretary Marsh, I look forward to working with you as we try to resolve this issue of how we are going to equip the Army with the kind of equipment that they obviously need.

Secretary Marsh. We sincerely seek your help and support, sir.

Senator McCain. Thank you.

Secretary Goodrich, I understand that the A-6 wing modification budget has been zeroed out. Is that accuate?

Mr. Goodrich. No, that is not.

Senator McCain. Do you have sufficient funds for the A-5 wing modification in this request?

Mr. Goodrich. We are reviewing the process, but the program is continuing. As far as I know, it has not been zeroed.

Senator McCain. Perhaps you could provide for the record an answer on that. I understand there are some problems with the funding.

Mr. Goodrich. I would be happy to do that.

[The information follows:]

The A-6 rewing program has not been zeroed, but reduced. We are currently studying several alternatives which will accelerate the retrofit program.

The fiscal year 1988 funding level for A-6E modification program is $133 million. This funding level will stretch the entire rewing program 2 years beyond our original estimate. However, with the first two production lots of wings already on contract (120 wings), we will be able to return all the grounded A-6 aircraft to flight status and meet the A-6E/F production schedule requirements.

Senator McCain. Secretary Aldridge, you mentioned in your opening statement that the B-1 was doing fine and was certainly not performing as reported in the press. Are there some serious problems with the ECM package?

Secretary **Aldridge**. Yes, sir. Let me characterize the aircraft. It is performing very, very well in its basic aerodynamic characteristics. We did have some problems with the fuel leaks. Those are behind us. We did have some problems with the radar, some minor software problems. Those are now behind us. We did have some problems with ECM, and those are in the process of being fixed.

As you know, the ECM problems are extremely difficult because while we tried to baseline and freeze the design so we could get the airplane deployed at the appropriate time, unfortunately our enemy does not stand still.

We did have some problems with AIL in the development process, and we have also had to continue to look for upgrades as the threat has evolved. All those things have come before us, and we have an activation plan to correct them.

Many of the problems, such as the airplane is unstable, it flies like an elephant, or similar comments, are just basically untrue. We do have a fix for our ECM, and we will continue to fix the ECM because those are the kinds of inherent difficulties in weapons system design, that the design does not stay stationary. It continues to evolve.

We will have modification programs for the B-1 ECM for as long as we have the airplane. They are not insurmountable. They are not the kind of things which would indicate the program is in deep trouble. I think I would characterize the problems that we are having with the B-1 now as those of maturity in bringing an airplane out of development into a pure operational state.

Senator **McCain**. Thank you, Mr. Secretary. Let me just ask a final question. What is your projected cost estimate for this particular fix?

Secretary **Aldridge**. We do not have a specific cost estimate for the fix because we are still doing the testing necessary to fully develop the actual design changes, which will be the line replaceable units that will go into the black boxes.

I will tell you that the aircraft will come in performing better than the original design specifications and within the $20.5 billion. We will not exceed the $20.5 billion in meeting the basic ECM modifications that would be required through this program.

Now, beyond that point, as we do evolve into heavier and more sophisticated threats, we will have to continue to provide for ECM upgrades. I have not included that cost because I have no idea what that might be. That is dependent on what the Soviets do in response, but as far as bringing in the basic program, it will be within the $20.5 billion we quoted several years ago.

Senator **McCain**. Thank you, Mr. Chairman.

Chairman **Nunn**. Thank you.

Senator Gore.

Senator **Gore**. Thank you, Mr. Chairman. I would like to welcome all three of our witnesses. I read their statements carefully, and I am sorry I was not able to be here for the full oral presentations. I did, however, hear a good bit of it. In the brief time I have, I would like to ask a few questions of you, Secretary Aldridge, on strategic systems.

STRATEGIC SYSTEMS

First of all, does the Air Force have confidence that the technical problems associated a few years ago with the small mobile missile have been worked out satisfactorily?

Secretary ALDRIDGE. Yes, sir. We really have had no major problems with the Small ICBM. I was involved with the source selection on the hard mobile launcher competition. We got two very, very good proposals on that program, and we picked the best winner. The program is going extremely well both in the mobile end area as well as the testing of the propellant and the guidance system. So we are very pleased with the program's progress.

Senator GORE. I think the Air Force has done an outstanding job, and the Ballistic Missile Office is to be commended, in my view, for tackling problems that some people just a few years ago said would be highly resistant to solution. They have not only solved the problems, they have done it in a very short period of time.

Now, do you agree with the statement of the Chairman of the Joint Chiefs before the subcommittee that there is a great deal of military strategic value in having a single warhead missile that can be used in a variety of scenarios?

Secretary ALDRIDGE. I would have a tough time arguing against the top military advisor of this country over the military value of a weapons system. As far as we are concerned, the Air Force supports the program as has been submitted to the Congress.

Senator GORE. Now, do you recognize the so-called synergy between a single warhead mobile system and the 50 MX missiles that have already been approved, notwithstanding the controversy over any additional missiles which have not been requested? Do you understand what the advocates of the system mean when they use the word "synergy"?

Secretary ALDRIDGE. Yes, sir. I have gone through that process before. I think the synergy is stronger with regard to the Peacekeeper and the rail garrison mode and the Small ICBM that exists between the 50 Peacekeepers and the Minuteman silos and the Small ICBM.

Senator GORE. Now, some cynics have speculated that the administration has devised this latest package in an insincere way with plans to drop support for the small mobile missile in preference for the rail garrison mobile MX. You would not buy into that cynicism, would you?

Secretary ALDRIDGE. Senator, let me explain very carefully. The Air Force supports the Small ICBM and the Peacekeeper and the rail garrison mode as submitted by the President to this Congress.

Senator GORE. All right, now in light of that let me explore the synergy that I referred to earlier. If those cynics were correct and support for the small mobile happened to be dropped by the administration, and in the further unlikely event that Congress went along with that, and in the further unlikely event that it decided to approve the rail mobile MX and the small mobile, which is the most unlikely world of all, we would have then a strategic force which relied upon strategic warning; correct?

Secretary **Aldridge**. No, sir. I do not agree with that notion. You are implying that the bolt out of the blue is an extremely likely event.

Senator **Gore**. No, I am not implying that at all. I am not implying that the bolt out of the blue is an extremely likely event. Let me preface my question a different way.

We have had as one of our strategic goals the construction of an arsenal that is not dependent upon strategic warning. The bolt out of the blue scenario is, of course, extremely unlikely. It has, nevertheless, had a great deal of political significance. It has frequently been used as an argument by this administration and by other political figures in both parties as a reason for doing this, that, or the other in the strategic area.

Partly as a result of this and as a result of other matters as well, our country has had as a goal the acquisition of strategic forces that are not dependent upon strategic warning. That is correct, is it not? Has that not been our goal?

Secretary **Aldridge**. That is basically correct.

Senator **Gore**. Now, if we had only a rail mobile garrison based MX without a small mobile missile, there would be no synergy, so to speak, and the rail mobile garrison based MX would be dependent for survival on strategic warning; correct?

Secretary **Aldridge**. No, sir.

Senator **Gore**. Tell me why you feel it would not be dependent upon strategic warning.

Secretary **Aldridge**. We could take the same action with the rail garrison which we take for our current bomber force. If we thought that the possibility was higher tomorrow than it is today, we could place a percentage of the rail garrison systems out on the rails. For example, about one-third, just like we maintain the bomber force at about one-third. Those forces would be survivable in using only tactical warning.

Senator **Gore**. Mr. Secretary, once again you seem, with all due respect, to be changing the classic definition of strategic warning to, in this case, encompass a 24-hour period. Strategic warning, although the scenarios we are talking about would probably be accompanied by some tension or whatnot, maybe it would not.

As a result, strategic warning has been used in the past in a way that is not compatible with a 24-hour period of warning. Would you not agree with that?

Secretary **Aldridge**. You are trying to get me to agree with a circumstance with which I do not agree in total. The situation that existed 10 years ago in which we designed our force to be based upon receiving only tactical warning for survivability, the events have changed.

What we need to do——

TACTICAL WARNING AND STRATEGIC WARNING

Senator **Gore**. No, excuse me. There is a difference between tactical warning and strategic warning.

Secretary **Aldridge**. Yes, sir, and that is what you——

Senator **Gore**. I am not making them one in the same.

Secretary **Aldridge**. Tactical warning is the detection of an actual attack on the forces themselves. Let us take the number 30 minutes. That is the maximum. It could be as little as 15 minutes if you think about sub-launched ballistic missiles, but 15 to 30 minutes is what I would define as you must survive that type of attack, which is basically the bolt out of the blue. The Soviets can do nothing to indicate their intention of attack. They cannot take their submarines out of port. They cannot take their forces out of garrison. They cannot take their ships out of their ports. They cannot do anything that would give you the slightest indication of a possibility of attack, and that is a scenario you are saying we need to design our strategic forces against.

I do not agree with that scenario. I think we will in fact get some indication of tactical warning, but we must be able to deter that attack. The Peacekeeper, the bomber or the submarine, all of these together deter the bolt out of the blue. There is no way the Soviets could launch a bolt out of the blue with all their forces on peacetime alert because I think we would get an indication of any buildup.

I believe the forces that we have with the B–1 coming in, the ATB, the Trident submarines, Peacekeepers now in the silos as well as the Minuteman in the silos that we will keep will deter a bolt out of the blue attack. The rail garrison would be the system that could be deployed and put in the garrison system which would even add to that deterrence, because the Soviets could never be assured that their bolt out of the blue attack would be successful, because we could launch right out of the garrison if we have to.

Now, the value of the rail garrison is if you were concerned about that unlikely event, even though you do not believe it will happen, we still have the option for rail garrison to put 30 percent out on the rails or 50 percent out on the rails or 100 percent at a very, very low cost, only the diesel fuel necessary to do it.

Senator **Gore**. My time has expired. If I might just conclude by saying I think there is a well understood classical difference between tactical warning and strategic warning, and I would conclude with this question which I think can have a brief response. Would you agree that the combination of 50 MX and the mobile single warhead missile would combine to defeat a Soviet first strike and be highly resistant to the scenarios which we have been discussing?

Secretary **Aldridge**. I would modify that by saying 100 MX missiles with the Small ICBM would do that job.

Senator **Gore**. If it turned out to be only 50, the combination would still prove highly resistant to such a scenario, would you agree?

Secretary **Aldridge**. They should be in the rail garrison configuration.

Senator **Gore**. Perhaps so. Perhaps so.

Thank you, Mr. Chairman.

MAJOR MILITARY MISSIONS

Chairman **Nunn**. Thank you, Senator Gore. Getting back to the question that I posed earlier and gave you a little time on. Let me repeat it for you. Quoting the Secretary, the Department of Defense must maintain the capabilities to perform an array of key missions: nuclear deterrence, defense of vital interest in NATO, Northeast Asia, Southeast Asia, protection of sea lines and communication and power projection.

Let me start with the junior service here.

Secretary ALDRIDGE. I would rather answer the B-1 question, sir.

Chairman NUNN. The question is not which one of these is the highest priority. I am not asking that. I am asking where do you see the largest deficiencies from your perspective?

Secretary ALDRIDGE. You asked, I believe, two questions. One was, not which one was the highest priority but, how would we rank those priorities. Where do we think the deficiencies are?

Chairman NUNN. The main thing I am interested in is the deficiencies.

Secretary ALDRIDGE. Let me address in terms of those particular programs. Those missions tend to be more theater level rather than worldwide missions, and so it is difficult for me to say that there is a deficiency in Southwest Asia. What that means is I do not have enough forces to get to Southwest Asia. They are more theater requirements, and our forces tend to go across Theaters.

Let me just address a couple of things. One, you did not say it, but I think our people are top priority. We can have the best weapons system in the world, but we have to have the quality people in it. I think it is up to us to make sure we continue to recruit and retain those quality people to do any missions we have, and it cuts across all those areas.

STRATEGIC MODERNIZATION

Strategic modernization is our top priority, and I think that is consistent with the Secretary, who says nuclear deterrence. Then the rest of our priorities tend to follow. In general terms, we place priority on readiness, airlift and tactical modernization. Unfortunately, that does not cut across any particular theater, it cuts across all of them.

If I looked at those areas and said where were the major deficiencies, it is in our ICBM modernization force, number one. We have to continue to modernize the ICBM force.

Second, we have to continue to build our airlift capacity.

Third, we have to build more tactical air forces than are currently provided in our budget. Those meet all of those needs in terms of Southwest Asia, Northeast Asia, sea lines of communication and power projection. They are encompassed in all of those, tactical airlift as well as tactical air forces. Those three are the top deficiencies I see that are currently in our budget.

Chairman NUNN. Where would you rate air support for ground forces?

TACTICAL FORCES

Secretary ALDRIDGE. That is in the tactical forces.

Chairman NUNN. You include that in the tactical?

Secretary ALDRIDGE. Yes, sir. That is the F-15s, F-16s, close air support, all of that. We, in our 5-year plan, have taken three tactical fighter wings out of our projection. That is too much. Our budgets will not permit any higher force structure, and I say that is a major deficiency. Tactical forces support all the Services and airlift supports all the Services. I would count those as our deficiencies; not in any theater, per se, but across the forces that would support the theater.

Chairman NUNN. Secretary Marsh.

Secretary MARSH. Well, if you look at——

Chairman NUNN. I am really looking at the deficiencies, not so much the priorities but the deficiencies.

NUCLEAR DETERRENCE

Secretary MARSH. I take nuclear deterrence and set it off to the side because I think that is an overarching consideration that impacts on us all. In order to do that, to achieve the kind of force we have that can do both the nuclear deterrence and to prevent war, I think you have to focus on NATO. That would be a number one priority.

If I were to tell you where the number one deficiency is that we have, it is in force projection. We do not have adequate strategic lift capability to project force either in Southwest Asia or Northeast Asia. Or, for that matter, to adequately perform our airlift requirements that we would need in the commitment to have 10 divisions in 10 days in Western Europe. These are all interrelated, as I am sure you see. One of the greatest deterrents that we could have would be adequate air and sealift for rapid projection of the forces that we now have.

Chairman NUNN. On a scale of 1 to 10, 10 being the greatest, 10 being curing your air and sealift problem and one being doing nothing, how do you rate this 5-year plan in addressing that deficiency?

Secretary MARSH. I think you have to address the issue of lift separately in the Air Force and the Navy. The Navy is going to meet the sealift requirement in the short term at about 85 or 90 percent. The Air Force is still going to be significantly below the 66 million ton miles per day objective. So I would say that probably you are looking at a rating of about a 5 and a 7 respectively.

Chairman NUNN. Thank you, Secretary Goodrich. I would like to go into more detail on this one, but we have a vote up there so we are going to try not to leave you here and have you wait. We are going to try to wrap it up.

Secretary GOODRICH. Senator, we feel that our plan meets defense guidance. For example, with respect to sealift, we are all concerned about sealift but our program is providing additional ships over this 5-year period over the FYDP. Although we would like to have more ships, it is a program that is viable at the present time, and we feel that we have met guidance.

Otherwise, it is the very nature of the Navy and the very occurrence over the Mediterranean today that we are very mobile. We move fast and with many resources in all of these areas of the world.

Chairman NUNN. Where is the greatest deficiency?

Secretary GOODRICH. I would say sealift. It is the demise of the Merchant Marines that causes this problem, and I feel that something must be done to get shipbuilding back into business in this country and provide the kinds of merchant ships that we are going to need with the trained personnel which we are losing in gross numbers, which, of course, affects very much the service that we have to give the Army and the Air Force in transporting logistic supplies.

Chairman NUNN. Thank you. Let me yield to Senator Warner.

MANPOWER/WOMAN POWER PROJECTIONS

Senator WARNER. Just a follow-on question. What about your manpower/woman power projection curves to meet this situation?

Secretary GOODRICH. Senator, we have approximately a 10,000 shortfall.

Senator WARNER. Today?

Secretary GOODRICH. Yes, and there has been a continuing shortfall over the last 3 or 4 years. In other words, the ceilings that have been placed on us have deprived us of the number of people that we think we need.

A serious problem, as I am sure you are very well aware, is that as we are bringing these additional ships on line, we need to train and bring on the appropriate crews of well-trained people to do the job. We have been able to man the ships up to 100 percent, and we are continuing to do so, but we have to take those people out of shore billets, and the shortfall and the trouble that we are getting into is in the shore billets.

This is our serious problem at the present time, and something has to be done. We need your assistance to make up and get us back on line because by the time we get to 1989 and 600 ships are on line, we are going to have serious manpower problems.

DECLINE OF DOLLAR VALUE

Senator WARNER. A brief question to all three witnesses, and that is with the decline in the value of the dollar, our service personnel overseas are now encountering some financial difficulties. How serious do you anticipate those difficulties will be in a general sense and what action can we take; we being, of course, the administration, who would be in the position to react first and then, if necessary, might the Congress have to react?

Secretary ALDRIDGE. A serious problem, sir, especially with longer tours overseas, keeping people there longer, it is going to be more difficult to fix.

Let me comment that we have just started an interdepartmental group to work on this problem specifically, and it is through the Office of the Secretary of Defense. The services will participate in looking across the entire spectrum of all of our activities to see what actions we specifically can take, and if there are any needs in the legislative arena. That will be provided to you shortly.

Senator WARNER. These people, particularly the younger ones, are dealing on a monthly budget of 30 days, so it would be my hope that you would report to the chairman and members of the committee at the earliest possible opportunity that you feel that there is a course of action that the Congress can take.

Secretary **Aldridge**. We can pass that back to the Secretary of Defense to make sure we accelerate that activity.

Mr. **Goodrich**. Senator, I agree. We can do that.

Secretary **Marsh**. Senator, the impact on the Army is about $1.2 billion which we will have to eat in currency exchange rates. It impacts on us more than the other services because we have more people. Forty-three percent of our force are overseas. They are outstanding people doing a good job, but it is a real hardship on them. As Secretary Aldridge pointed out, Mr. Weinberger is aware of this problem. He appointed a special task force to report to him, and it is being addressed now.

Senator **Warner**. There is a very short fuse on this one, as you well know, gentleman, because your retention will begin to drop.

Chairman **Nunn**. I agree with Senator Warner. I think from the point of view of being able to document it, we need the ups and the downs in the dollar because it went up and the purchasing power went way up in the early 1980s, and now it has come way down. We have to have a relative balance of where we are compared to, let us say, whatever year makes sense to you, but we would like some kind of commonality in that.

Secretary **Marsh**. Mr. Weinberger has some very strong views about it, about dollar exchanges and how we go about establishing those values. He shares your concerns.

Chairman **Nunn**. We are going to have to run and catch this vote. We thank you all for being here. We will look forward to continue working with you, and we have a lot more detail in the subcommittee deliberations.

[Questions for the hearing record, with answers supplied, follows:]

Questions Submitted by Senator Dan Quayle

ATACMS

Senator **Quayle**. Secretary Marsh, would there be any benefit to be able to threaten targets of "importance to the Corps at ranges beyond the capabilities of cannons and rockets" with nuclear munitions? If Congress does not lift the ban on making *ATACMS* dual-capable, will another new system be considered to perform this mission?

Mr. **Marsh**. [Deleted.] The Army has begun studying candidates for the follow-on to Lance (excluding Army TACMS) and plans to initiate a formal Phase 2 Nuclear Warhead Feasibility Study with the Department of Energy later this year. A congressional restriction prevents the Army from conducting any studies on a nuclear capability for the Army TACMS. Army TACMS could be considered one of the candidates for the follow-on to Lance, but in order to do this, the restriction on studying a nuclear Army TACMS would have to be lifted. The study of a follow-on to Lance would be in addition to other Army initiatives to improve our conventional capabilities and would not in any way dilute the Army's continuing strong support for conventional improvements.

TOMAHAWK IMPROVEMENTS

Senator **Quayle**. A Navy Operational Requirement has identified the early [deleted]. Does the Navy have any efforts underway to meet this requirement?

Answer. There is currently an approved Operational Requirement (OR) to [deleted]. An Operational Requirement is being staffed to improve [deleted]. We intend to develop these upgrades to TASM concurrently to save integration and testing costs. The development will start in fiscal year 1990; the current funding profile is:

FY-1990 $6.6M.
FY-1991 $10.3M.
FY-1992 $20.8M.

Additional funding will be required in fiscal years 1993 and 1994 and will be addressed during the POM-90 process. IOC for these improvements will be late fiscal year 1994 or early fiscal year 1995.

TOMAHAWK NAVIGATION IMPROVEMENTS

Senator **Quayle**. The Tomahawk Land Attack Missile Conventional Unitary Warhead (TLAM/C) presently needs [deleted]. The operational forces have indicated that this [deleted]. Has the Navy any plans to implement these technologies into TLAM/C?

Answer. An Operational Requirement (OR) is being staffed to address these issues. [Deleted]. System (GPS) to TLAM/C and TLAM/D appears to be achievable by [deleted]. We are currently reviewing realignment of our funding priority to start this program. Specifically:

FY-1988 $10.5M.
FY-1989 $12.1M.
FY-1990 $16.1M.
FY-1991 $14.1M.
FY-1992 $5.2M.

With this funding profile we can support the start of Development Flight Testing in fiscal year 1990 and an IOC in fiscal year 1992.

HEAVY LIFT LAUNCH VEHICLE

Senator **Quayle**. You mention in your report to Congress that assured access to space or lift capacity is critical to assure our security. Has the Air Force no use for a heavy lift vehicle? This program is in the supplemental. Is the Air Force unwilling to give this program any support.

Secretary **Aldridge**. DOD and NASA have been studying future national space transportation and technology requirements for well over a year as part of the Space Transportation Architecture Study (STAS). Interim study results have pointed toward a need for an unmanned cargo vehicle and manned "people carrier" beginning in the late 1990s. With the SDIO pursuing the potential requirement for an early deployment option, a heavy lift launch vehicle (HLLV) becomes a more pressing, near-term need.

Concept definition studies will begin shortly for an "objective" HLLV to be available in the late 1990s that will meet cost reduction and capacity goals. HLLV requirements in the DOD Fiscal Year 1987 supplemental would accelerate this effort toward a mid-1990 availability date. The HLLV design will be such that an "interim" HLLV, using key components being developed for the "objective" vehicle, could be made available in the early to mid-1990s should civil or national security requirements dictate.

ADVANCED TACTICAL FIGHTER (ATF)

Senator **Quayle**. The Advanced Tactical Fighter is projected to be $40-50 million per copy flyaway cost. In order to meet this challenging target, what cost reduction efforts does the Air Force plan to implement, and what is the overall acquisition strategy?

Secretary **Aldridge**. The unit flyaway cost goal for the ATF is $35 million in fiscal year 1985 dollars, based on a buy of 750 aircraft at a rate of 72 per year. This cost goal is considered challenging but not unrealistic, and adherence to it is at the forefront of ATF program and design considerations.

Key objectives of the Demonstration/Validation (Dem/Val) phase are to develop preliminary ATF designs, refine cost estimates and define cost/capability tradeoffs required to meet the $35 million goal. In the Dem/Val phase, these design-to-cost (DTC) goals will be refined into firm DTC goals per DOD D4245.3. DTC thresholds (costs which cannot be exceeded by 25 percent without explanation to Congress) will be established upon entry into FSD. DTC values will address not only unit flyaway cost, but also unit acquisition cost, annual operating and support costs and total life cycle cost.

A primary source selection criteria for Dem/Val, along with reliability, and maintainability, was productibility. The degree of aircraft design responsibility and authority being given to manufacturing and quality control engineers at this stage is unprecedented. Additionally, Dem/Val will implement Phase I of a Tech Mod (technology modernization) program, in which the contractors are required to provide their plan for the ATF factory of the future and analyze production facilities required to efficiently produce and assemble ATF materials and components. Productibility demonstrations; e.g. companies and advanced materials, are also planned.

The major thrust of the acquisition strategy is competition. General Electric and Pratt & Whitney are competing in the development of ATF engines, and each airframe contractor is required to flight test both engines in their prototype aircraft. Other areas of emphasis to help control acquisition costs are commonality, use of standard modules and components (particularly in the area of avionics), and maintaining alternate sources of supply for critical subsystems.

In the future phases of the program, the government will limit the period of proprietary rights, use data warranties to guarantee quality and availability of data, maintain multiple sources of supply where it is cost effective, etc. Options for competition in FSD and subsequent phases remain open, and analysis in Dem/Val will help define the optimal acquisition strategy.

Questions Submitted by Senator Pete Wilson

MAJOR DEFENSE ACQUISITION REPORTS

Senator Wilson. Mr. Secretaries, during last year's authorization process, I sponsored an amendment which required the submission to the Armed Services Committees of a manpower estimate before the Secretary of Defense can approve the full scale engineering development or the production and deployment of a major defense acquisition program. That amendment became section 1208 of the fiscal year 1987 Defense Authorization Act.

Now, while it is the Secretary of Defense that must send the manpower estimate to the Committee, my question to each of you is whether there is any major defense acquisition program in your departments which is now at the stage, or will soon be at the stage where such reports would be submitted?

Do you intend to comply with this law by providing 90 days prior notification and a full manpower report?

Should you identify a program or programs for which substantial manpower end strength increases will be required, I must inform you that I, as the Ranking Member of the Manpower Subcommittee, may have to recommend cancellation on the basis of manpower insufficiency alone.

Mr. Marsh. The Army is familiar with the requirements of section 1208 of the fiscal year 1987 Defense Authorization Act, and has every intention of complying with this law. The following systems are scheduled to go to a full scale engineering development decision this year: Light Helicopter Experimental (LHX), Forward Area Air Defense Non Line of Sight Forward Heavy (FAAD-NLOSFH), and the family of medium and heavy tactical vehicles (FMTV/FHTV). The systems which are scheduled to go to a production and deployment decision are the remotely piloted vehicle Aquila, the advanced field artillery tactical data system (AFATDS), and the high survivability portion of the Block II modification to the Bradley Fighting vehicle. The exact details of the report that the Secretary of Defense will submit are being drafted. The Army is concerned about the impact of these new systems not only in terms of manpower, but also in terms of personnel quality and training. The Army MANPRINT program is focused on integrating these concerns into the acquisition process.

DEFENSE ACQUISITION PLAN

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Member of the Manpower Subcommittee, may have to recommend cancellation on the basis of manpower insufficiency alone.

Answer: Yes, we will soon provide a manpower estimate for the Trident II missile. The MK-50 Torpedo and HFAJ programs are also nearing major decision milestones and manpower estimates will be submitted for those programs.

I have tasked ASN (RE&S) to oversee the development of manpower estimates for major acquisition programs and to review the reports before they are submitted to the Secretary of Defense.

Navy does intend to comply with the law.

SEALIFT SHORTFALL

Senator WILSON. First, in the Navy's 1985 sealift study, you claim that a short-fall of an adequate number of militarily useful product-tankers existed. Has this situation improved over the last few years? Concerning other types of sealift, for example dry cargo, are we suffering the same deficiency?

ANSWER. The shortfall of militarily useful product tankers continues to exist. However, ships of this type have the highest procurement priority for addition to the Ready Reserve Force (RRF). A number of these ships have been offered for fiscal year 1987 procurement. We expect to significantly reduce this shortfall by procuring tankers for the RRF over the next few years.

We identified a deficiency in dry cargo sealift in the DOD Sealift Study of three years ago. Since then, remedial programs have been put in place; for example, increasing the Ready Reserve Force (RRF), acquisition of Maritime Prepositioning Ships (MPS) and our SEASHED and Flatrack procurement programs. All contribute to continuing improvement in our dry cargo sealift.

CONDITION OF SHIPYARD BASE

Senator WILSON. Mr. Secretary, would you agree that our shipyard base is in perilous condition and cannot be adequately maintained based on Navy work alone?

ANSWER. Our analysis shows that we have not and will continue to have in the future a shipbuilding and repair industry that will fulfill national defense requirements. Current and projected Navy shipbuilding and repair requirements, while adequate to sustain a mobilization base, are in themselves insufficient to support the nation's shipyards at their current level of employment.

SHIPYARD BIDDERS

Senator WILSON. As you look to 3 DDG-51's in the fiscal year 1988 budget, could you inform the committee as to your intentions regarding yards you intend to qualify to build the DDG-51?

ANSWER. The Navy evaluated shipyard qualifications as part of the technical evaluation of shipyard proposals submitted in response to Navy requests for proposals (RFP). Contract awards are made to the low bidder among the technically qualified shipyard bidders. We are currently reviewing the proposals for the fiscal year 1987 DDG-51 program. Bids have been received from a number of shipyards from various regions around the country.

CONSTRUCTION OF COMBATANTS ON THE WEST COAST

Senator WILSON. Do you agree that maintenance of a modern combatant construction capability on the west coast should be a priority strategic objective?

ANSWER. Maintenance of west coast ship repair capability is a priority strategic objective—combatant ship construction is not. However, as you have noted, the Navy has recently awarded the AOE-6 contract, which potentially approaches $1 billion, to a competitive and capable west coast shipyard. The Navy welcomes competitive west coast bids for combatant construction as well.

MANPOWER ESTIMATES

Senator WILSON. Is there any major defense acquisition program in your department at full scale engineering development or production and deployment decision stage, or will soon be at the stage where manpower reports would be submitted? Do you intend to comply with this law by providing 90-day prior notification and a full manpower report?

Secretary ALDRIDGE. The Air Force has six major defense acquisition programs that will reach approval milestones for FSED or production and deployment (P&D) in fiscal year 1987. The subject systems are listed below with projected dates:

System	Milestone	Date
AMRAAM	P&D	May 87
SRAM II	FSED	June 87
JTIDS	P&D	June 87
JSTARS	FSED	June 87
ATARS	FSED	June 87
LANTIRN	P&D	September 87

The Air Force intends to comply fully with the 90-days prior notification and submission of all manpower reports required by section 1208 of the fiscal year 1987 Defense Authorization Act for future weapon systems. However, since legislation was not effective until January 1987, we may experience some delays in the earlier scheduled programs, in particular AMRAAM and SRAM II. Caution should be exercised when reviewing manpower estimates for programs progressing to FSED. In general, these estimates will not be precise since many key decisions driving manpower requirements (e.g., basing modes, crew ratios, operational/maintenance concepts) change frequently during this phase of the acquisition process.

B-1B, VALUABLE STRATEGIC DETERRENT

Senator WILSON. Are there, in your opinion, any major problems with the B-1 that would prevent it from becoming a valuable strategic deterrent?

Secretary ALDRIDGE. No. The B-1B can perform its missions now, and work continues to rapidly mature the system and bring it to its full potential performance. The B-1B will contribute greatly to deterrence for many decades to come.

VANDENBERG AND LAUNCH FACILITIES

Senator WILSON. Last year when the Air Force announced its revised launch schedule in the wake of the Shuttle Challenger tragedy, you said, "the Air Force is fully committed to Shuttle launches . . . that there were payloads that had to fly on the Shuttle and had to be placed in a polar orbit." This year you seemed to have flip-flopped on this issue, Why? What assurances do we have that you won't change your mind again next year?

Secretary ALDRIDGE. We have not wavered in our objective to complete the DOD space launch recovery as quickly as possible and restore our ability to meet national security requirements. A major part of that objective is an assured access to space for our critical payloads through the use of both shuttle and expendable launch vehicles.

We are manifesting over 15 DOD payloads on the shuttle in the next 3 years (1988–1990). Our payloads utilize approximately 43% of the shuttle capacity that NASA plans to make available during that period. Over 20 DOD payloads are on the shuttle planning manifest for 1991–1993. Thus, the shuttle remains a key element in our launch plans in the future. We will use the combined capabilities of the shuttle and expendable launch vehicles to meet our needs, but we must stand ready and be able to make appropriate adjustments in our plans if new developments introduce unacceptable risk, inefficiencies or delays.

Since we will initially fly all shuttle missions from the east coast, to optimize turnaround time and get the most out of the three remaining orbiters, we have made appropriate adjustments in our immediate plans for the Vandenberg Shuttle Launch Site. We have placed the launch site in "minimum facility caretaker" status, the most cost-effective configuration during the shuttle launch recovery period. In this configuration, we will be able to reactivate the site within four years of a decision to do so. Four years should be sufficient time for NASA to complete development on filament-wound casings and prove the feasibility of shuttle main engine operations at a 109% level. Both of these performance enhancements are required to boost DOD payloads into polar orbit for west coast shuttle launches.

We believe it is not prudent to specify exactly when and for which missions we would reactivate the Vandenberg Launch Site until we have resumed shuttle flights and have accurately established the new performance baseline.

Chairman NUNN. Thank you.

[Whereupon, at 4:30 p.m. the meeting was adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEARS 1988 AND 1989

THURSDAY, FEBRUARY 5, 1987

U.S. SENATE,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

MACRO-BUDGET ISSUES

The committee met in open session, pursuant to notice, at 10:05 a.m., in room SD–342, Dirksen Senate Office Building, Senator Sam Nunn (chairman) presiding.

Present: Senators Nunn, Exon, Bingaman, Dixon, Glenn, Gore, Warner, Thurmond, Humphrey, Cohen, Wilson, and McCain.

Staff present: Arnold L. Punaro, staff director; Carl M. Smith, staff director for the minority; Romie L. Brownlee, deputy minority staff director; Patrick A. Tucker, minority counsel; Robert E. Bayer, Robert F. Bott, John J. Hamre, George K. Johnson, Jr., Ronald P. Kelly, James R. Locher III, David S. Lyles, Michael J. McCord, Frederick F.Y. Pang, Gordon G. Riggle, Mark B. Robinson, and Patricia L. Watson, professional staff members; Lori M. Jackson and Debra A. Rice, staff assistants.

Also present: Jeffrey B. Subko, assistant to Senator Exon; Gregory B. Craig, assistant to Senator Kennedy; Charles C. Smith, assistant to Senator Dixon; Leon Fuerth, assistant to Senator Gore; Terrence Lynch, assistant to Senator Shelby; James M. Bodner, assistant to Senator Cohen; Christopher Mellon, assistant to Senator Cohen; Henry D. Sokolski, assistant to Senator Quayle; Mark J. Albrecht, assistant to Senator Wilson; Alan Ptak, assistant to Senator Gramm.

Chairman NUNN. The committee will come to order.

Our Armed Services Committee convenes this morning to take testimony from the Chiefs of Staff of the four military services. Today's hearing offers the Members of the committee another opportunity to focus on the macro-budget issues of the defense authorization request for fiscal years 1988 and 1989.

The committee spent the first few weeks of this session of the 100th Congress examining U.S. national security strategy and its military strategy component. Although more strategy hearings will be held later this year, the initial series of 12 hearings with our 23 witnesses established a comprehensive broad context for the committee's review of the defense budget request.

Today's four witnesses are uniquely qualified to help us link U.S. military strategy and the defense authorization request. As members of the Joint Chiefs of Staff and as the senior military officers of their services they have been asked to explain to the committee how their services' budget requests support our military strategy and the operational requirements of the combatant commanders.

At this time I would like to welcome and formally introduce the witnesses. Today we will hear from Gen. John Wickham, Chief of Staff of the Army; Gen. P.X. Kelley, Commandant of the Marine Corps; Adm. Carlisle Trost, Chief of Naval Operations; and Gen. Larry Welch, Chief of Staff of the Air Force.

I would particularly like to express my appreciation for the witnesses' willingness to appear on somewhat short notice. Although the format for this hearing with the service chiefs of staff is different from the traditional service posture statements, I do not expect that they will have any difficulty addressing the issues that Senator Warner and I suggested to them by letter for their testimony.

These are the same issues with which these witnesses must wrestle every day—the major missions of the Defense Department and priorities that should be assigned to those missions, and the relationship of the service's budget requests to these priorities. I understand, General Kelley, that you are going to have to leave early today for an out-of-town trip; we will leave that up to you when you have to depart.

We appreciate your being with us and we certainly understand. We are delighted to have all of you here. Senator Warner went to the National Prayer Breakfast, where I was—and I think that is where Admiral Trost has been this morning, too. I know he will be here in a few minutes, but we will go ahead and begin the hearing at this point.

General Wickham, we look forward to hearing your testimony and the testimony of each of the chiefs, and then after we have heard that we will ask questions. So why don't you proceed?

Before doing so, Senator Dixon has a prepared statement which will be inserted for the hearing record.

[The prepared opening statement of Senator Dixon follows:]

PREPARED STATEMENT BY SENATOR ALAN J. DIXON

Mr. Chairman, today is the second hearing of our Committee on the Macro-Budget Issues of the Defense Authorization request for fiscal years 1988 and 1989.

I look forward to hearing the chiefs of the military services presentation on their budget proposals. I hope they can explain how the United States will be able to sustain its conventional war fighting capabilities in the face of continued stretch-outs of major conventional programs and proposed increases in the strategic forces budget. At a time of limited defense resources, conventional force modernization clearly occupies a much lower priority with this administration than strategic forces. The strategic buildup request by the administration in my view has very serious consequences for our conventional forces.

Funding for the readiness interrelated accounts are only holding steady which could result in a "hollow force" of weapons that are not adequately maintained or operated. I do not believe that the administration's request in the readiness related share of the budget for fiscal years 1988 and 1989 begins to make up for the lag in this area during the administration's previous budgets from fiscal years 1981-86.

Once again, our ammunition accounts have taken another large hit compared to other defense programs. What we have is an administration request for ammunition programs which has fallen behind inflation and is actually lower in current dollars than it was in fiscal year 1982. Again, this decline contrasts sharply with the growth in funds devoted to strategic programs in the 1980's.

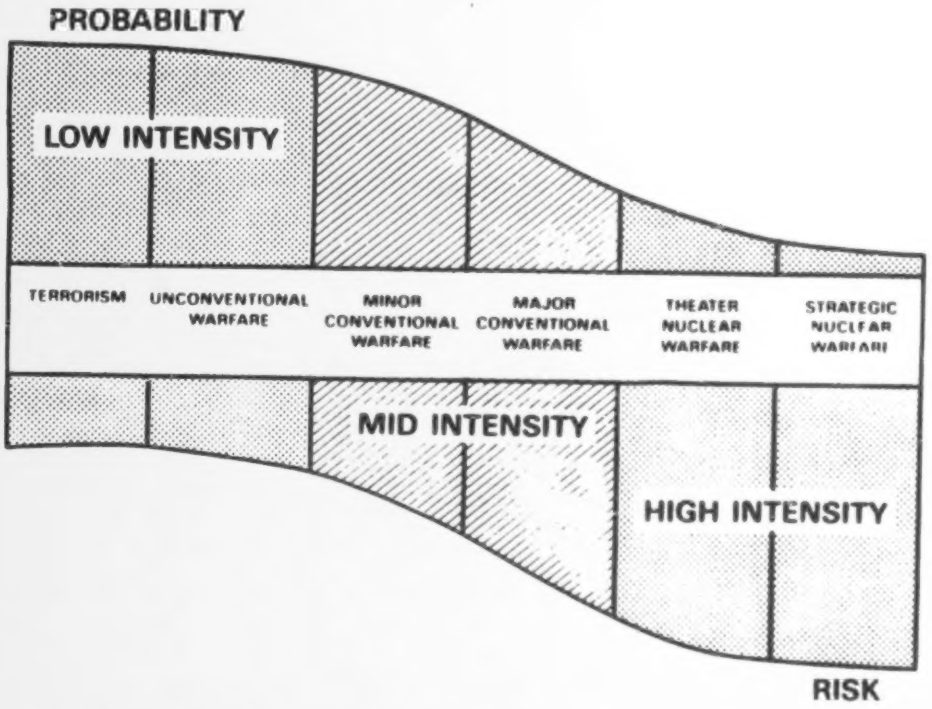
Thank you, Mr. Chairman.

STATEMENT OF GEN. JOHN A. WICKHAM, JR., CHIEF OF STAFF, UNITED STATES ARMY

General WICKHAM. Thank you, Mr. Chairman.

I would like to put my formal statement in the record and address orally the issues that you and Senator Warner raised in your letter to us. And, if I might, I will use some vugraphs. I shall go through these rather quickly, as I think some of them are familiar to you because Secretary Marsh may have used some of them yesterday.

SPECTRUM OF CONFLICT


PROBABILITY
LOW INTENSITY
TERRORISM
UNCONVENTIONAL WARFARE
MINOR CONVENTIONAL WARFARE
MAJOR CONVENTIONAL WARFARE
THEATER NUCLEAR WARFARE
STRATEGIC NUCLEAR WARFARE
MID INTENSITY
HIGH INTENSITY
RISK

I think it is important that we lay out for you that there is a coherent process as we look to the nature of the world in which we live and the nature of our commitments. As we begin to build programs working with the Commanders-In-Chiefs (CINCs) we all need to deal with the threat. This is the real world that we live in and there is threat across a whole spectrum of conflict and we are all familiar with that. Low risk is likely to be found in this high intensity of conflict area. The higher risk and the higher probability is faced in the lower intensity conflict regions, and we have to build our forces and sustainment capabilities for the whole spectrum.

NATIONAL SECURITY OBJECTIVES

- DETER CONFLICT AND COERCION; DEFEAT AGGRESSION
- ASSIST ALLIES AND FRIENDS TO DEFEND AGAINST ARMED AGGRESSION, INSURGENCIES, AND TERRORISM
- ENSURE U.S. ACCESS TO CRITICAL RESOURCES, THE OCEANS, AND SPACE
- REDUCE SOVIET PRESENCE THROUGHOUT THE WORLD
- PREVENT TRANSFER OF MILITARILY SIGNIFICANT TECHNOLOGY
- PURSUE EQUITABLE AND VERIFIABLE ARMS REDUCTION AGREEMENTS

...PEACE, FREEDOM, AND PROSPERITY

Of course we must all deal in this world with our national security objectives. These are not unusual. There is a continuum here from administration to administration. Many of these objections go back to World War II—basically a containment policy, to deter aggression, and to deal with it should it break out.

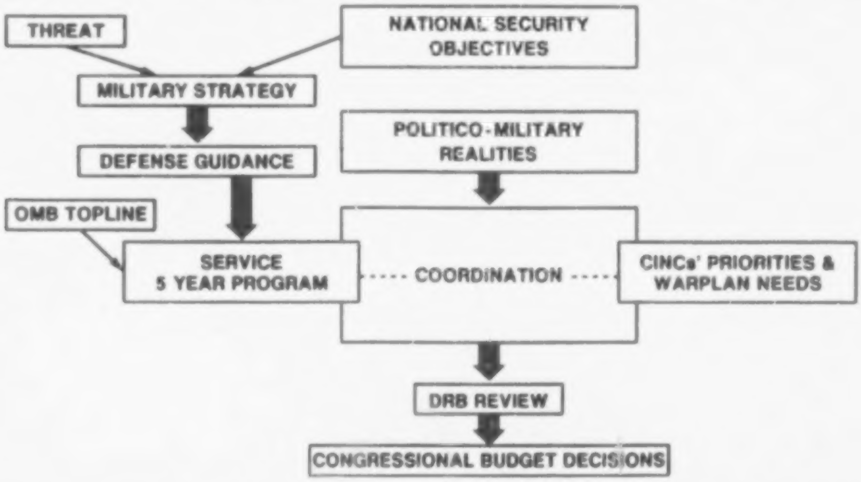
ELEMENTS OF MILITARY STRATEGY

- NUCLEAR AND CONVENTIONAL DETERRENCE
- ARMS CONTROL
- STRONG ALLIANCES AND REGIONAL COOPERATION
- FORWARD-DEPLOYED FORCES (MODERNIZED AND SUSTAINED)
- STRONG CENTRAL RESERVE (ACTIVE AND RESERVE FORCES)
- FORCE MOBILITY
- FREEDOM OF THE SEAS, AIR, AND SPACE
- EFFECTIVE JOINT COMMAND AND CONTROL
- GOOD INTELLIGENCE

Out of that then we have our military strategy, and recently this committee has heard a number of witnesses talk about military strategy—the art and science of how we use armed forces to achieve our national objectives. There is a continuum here from administration to administration, and in building forces to deal with them we have to balance our capabilities against these elements of military strategy.

Dealing with deterrence is the key element here. Arms reductions is another area of which we are all working hard. The next is force projection and forward-deployed forces. Finally, the last one, which sometimes we take for granted is good intelligence. It is important if we are to have adequate premonition of offensive operations so that we can deploy.

STRATEGY TO BUDGET PROCESS


THREAT
NATIONAL SECURITY OBJECTIVES
MILITARY STRATEGY
POLITICO-MILITARY REALITIES
DEFENSE GUIDANCE
OMB TOPLINE
SERVICE 5 YEAR PROGRAM
COORDINATION
CINCs' PRIORITIES & WARPLAN NEEDS
DRB REVIEW
CONGRESSIONAL BUDGET DECISIONS

I would like to take a minute to lead you through the strategy to budget process because I think one of the issues that the committee is wrestling with is whether or not we have adequate top-down guidance or bottom-up comments in building programs and how they relate to strategy. The short answer to that is we have both.

I talked a little bit about the threat, national objectives and military strategy, all together leading to the development of defense guidance. In the Pentagon now, in some 16 years of service both in and out of joint assignments, I have seen the Defense Guidance evolve to what we see now. The guidance we have now seems to be the most thorough and most comprehensive in terms of taking into account the threat and our objectives.

Out of that defense guidance comes the service programs. As the Defense Guidance is built we ask the unified commanders to come in and critique the Defense Guidance and Military Departments to critique the Defense Guidance as well. So, as the guidance comes out in published form for the departments it does reflect not only top-down guidance but also bottom-up comments that involve real world situations and real needs of the unified commanders.

Now, the guidance generally could be conceived as excessive in terms of requirements. That is where an Office of Management and Budget (OMB) Top Line comes in. The Top Line tells us, from the Government standpoint, what the revenues are going to be and what the needs of the departments are going to be. That is how the services then begin to build a concrete, coherent 5-year program.

We build this program on an annual basis and you see that the 2 years that you have now, 1988 and 1989, are part of that 5-year rolling program. As we develop that program we work very closely with the unified commanders. Secretary Marsh yesterday showed you the milestones, on an annual basis, of how we work with the unified commanders.

We tell the unified commanders what our programs are in detail. We look at the unified commanders' integrated priority list, and at periodic times in the development of the Army Program, the service staff must justify to me what we have and have not done in terms of supporting the unified commanders. So there is a coordination process here. The unified commanders know in detailed terms where we are supporting them and not supporting them so that when they come to the Defense Resources Board review they are armed with concrete material to challenge the service or to agree to what the service has done.

It is also important to realize that there are some real world pressures that the services must deal with as they build the program. Grenada, for example, led to some deficiencies that had to be fixed and we had to fix programs with regard to that. The Congress over the years—and the chairman has been instrumental in this—had pushed the department more in the direction of the tooth-to-tail ratio of our forward-deployed forces. That has led to philosophical adjustments as well as programmatic adjustments in the way we develop specific 5-year programs, and that is why I am talking about real world realities here.

All that leads, then, to a Defense Resources Board review every summer. The unified commanders, the service chiefs and the service Secretaries participate in this together. Basically the DRB reviews the programs against the Defense Guidance and against the CINCs' needs, and where there are deficiencies we debate them in open session with all our hair hanging out. Decisions are then made out of that DRB, programmatic decisions, that lead then to the final President's Budget that you have before you.

I think this is a coherent process. It is the best process that I have seen over the years. It is not perfect, but it is a process where the very elements you would seek—the CINCs, the services, and the OSD principals—interface to develop a program that is related to our national strategy needs.

Chairman NUNN. General Wickham, could you just tell us how this process has evolved? What is different now? You have been there for 16 years. What is different now than it was 5 or 10 years ago?

General WICKHAM. Thirteen years ago I was military assistant, as a major general, to Secretary Schlesinger and to Secretary Rumsfeld when they were Secretaries of Defense. They had nothing like a DRB then. Then it basically was a very narrowly defined process that looked individually at each service. Each service had its day in court, and when that day in court was over the OSD principals would decide among themselves what allocations and adjustments would be made in the service program. The unified commanders were never involved in this process. Their only recourse was through the JCS and the chairman's interface with the Secretary of Defense.

Today there is a coherent process. The Defense Guidance is very comprehensive now. We did not have that kind of comprehensive process 13 years ago. Then we did not have anywhere near this kind of coordination that has developed among all of the services and, in a very extensive way, with the CINCs.

When I was a unified commander in Korea for 3 years, 5 years ago, I had none of this and nobody consulted me at all. Today we do, and today we have to demonstrate to the Secretary of Defense what we services have done by the CINCs and what we have not done by them. So I think there has been major change.

Now, whether that is a change that has evolved under General Vessey and Secretary Weinberger and others, or whether it is a product of the Congress stimulating us is the question. I think it is both.

Chairman NUNN. We saw a chart yesterday where the Secretary of the Army presented a list or a block type graph chart that showed what the CINCs had requested. The other services did not have that. Do the other services do that same thing?

Admiral TROST. We do the very same thing. We receive their inputs, we solicit their inputs, all of us. We look at them. We submit as part of our program objectives a memorandum or summary or addendum that actually shows how we have accommodated each of the CINCs' concerns and to what degree.

Chairman NUNN. Could you furnish that to us for our record so we could have all four services that would have a similar type chart? I assume you have something like that.

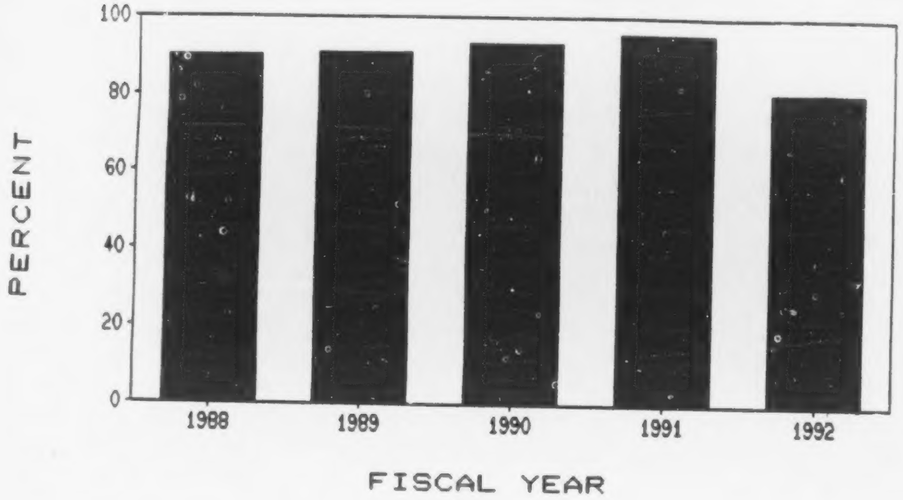
Admiral TROST. Surely we could do that.

Chairman NUNN. Each of the services—General Kelley, General Welch.

[The information follows:]

General KELLEY:

NAVY SUPPORT OF CINC IDENTIFIED FUNDING REQUIREMENTS



The Navy programmed an average of $91.7B in support of CINCS for FY 88-92

MARINE CORPS FUNDING OF CINC REQUIREMENTS IN THE FISCAL YEARS 1988/89 PRESIDENT'S BUDGET SUBMISSION AND FYDP

	No. requirements	Full	Funding level partial	Unfunded
CINCEUR	1	1		
CINCLANT	24	[1] 22	2	
CINCPAC	4	[1] 3		[2] 1

[1] The CINCs' manning goal for the Force Service Support Groups was 90 percent. With congressional support for the end strength increases requested in the fiscal year 1989 budget submission this goal will be attained.

[2] Havequick Time Distribution Equipment was programmed for procurement in fiscal year 1988; however, the item failed to meet specifications during developmental testing and the funding was deleted during budget review.

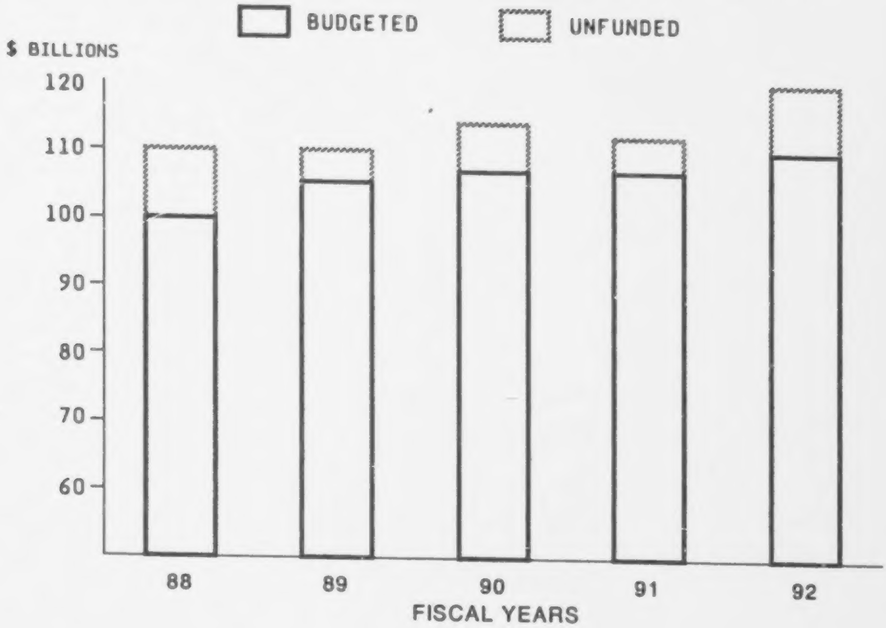
General WELCH:

ACCOMPLISHMENT OF CINC REQUIREMENTS

Chart 1 compares forces planned over the FYDP to the aggregate of CINC requests, after eliminating duplication and overlap in requirements.

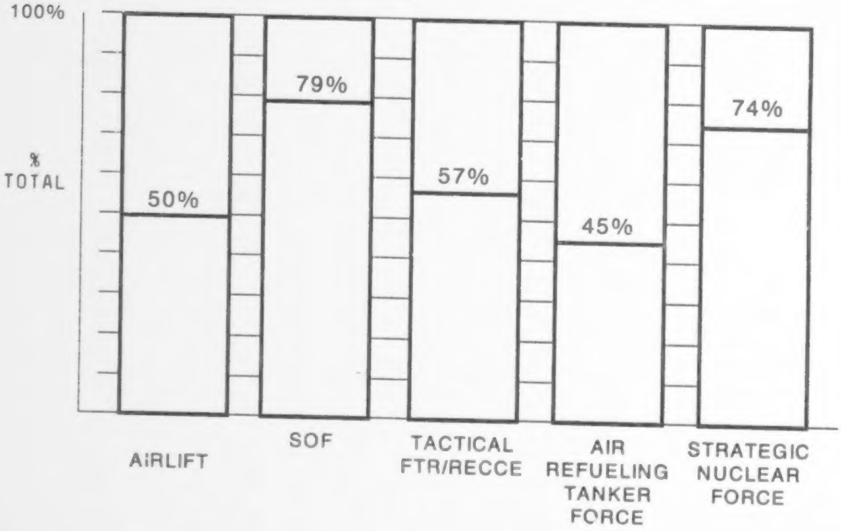
Chart 2 compares Air Force capability to specific requirements identified by the CINCs in their responses to the fiscal years 1988–92 Air Force program.

SUPPORT FOR CINCs' INTEGRATED PRIORITY LISTS



CAPABILITY vs FORCE GOALS DERIVED FROM CINC REQUIREMENTS

FUNDED IN FY 88–92 FYDP



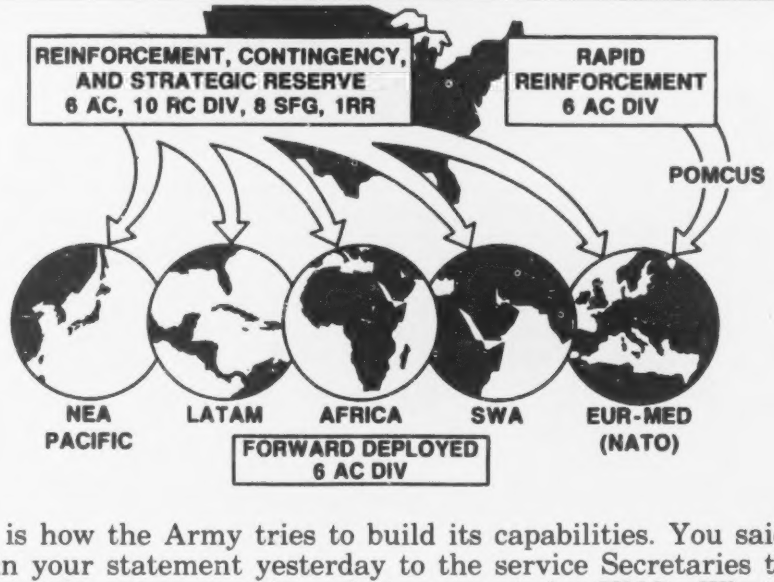
General **Wickham**. What you are asking for is done in excruciating detail and may be pushing it too far for your needs. For example, the unified commander would want to know, in line item detail, how many rounds of 155mm ammunition and how many fuses for the 155mm howitzer are going to be made available to him. I wonder whether that kind of detail, in this instance, may very well lead to overwhelming the CINCs in terms of keeping their eye on the ball of warfighting. We have got to be careful there. I think we are doing adequately in terms of supporting the CINCs.

MISSIONS OF ARMY FORCES

- DEFEAT A WARSAW PACT ATTACK ON NATO AND MAINTAIN ITS TERRITORIAL INTEGRITY AND SECURITY
- DEFEND VITAL U.S. INTERESTS IN THE PACIFIC
- DENY SOVIET CONTROL OF THE PERSIAN GULF AND ASSOCIATED OIL RESOURCES
- ASSIST ALLIES AND FRIENDS IN ASIA, LATIN AMERICA AND AFRICA
- MAINTAIN CAPABILITY TO COUNTER THREATS IN THE WESTERN HEMISPHERE
- RESPOND TO OTHER THREATS TO U.S. INTERESTS ANYWHERE IN THE WORLD

Now, having shown you how we build our programs, these missions of Army forces are sort of immutable over the years. We'll go through them, as they are related to the military strategy.

TOTAL ARMY CONTRIBUTION TO MILITARY STRATEGY
(28-DIVISION FORCE)


REINFORCEMENT, CONTINGENCY, AND STRATEGIC RESERVE
6 AC, 10 RC DIV, 8 SFG, 1RR
RAPID REINFORCEMENT
6 AC DIV
POMCUS
NEA PACIFIC
LATAM
AFRICA
SWA
EUR-MED (NATO)
FORWARD DEPLOYED
6 AC DIV

Here is how the Army tries to build its capabilities. You said, I think, in your statement yesterday to the service Secretaries that the service departments exist only to support the CINCs. What we are trying to do in the Army is to build that capability to support them.

Our 28 division force is less than the JCS say we need, but that's all we can afford and that's all that we are resourcing.

Chairman NUNN. I would say CINC and national strategy.

General WICKHAM. Yes, I'm sorry. I did not mean to short-change it.

We have a number of divisions stationed in the United States, that are the six reinforcing divisions to go to NATO as part of the "10 divisions in 10 days" requirement. We also have six divisions deployed overseas which makes 43 percent of the Army stationed overseas, incidentally.

In this block you see reinforcing capability, 6 Active Divisions, 10 Reserve Component Divisions, 8 Special Forces Groups, and 1 Ranger Regiment, to go to a variety of areas. That is to meet the multiplicity of commitments that the Army has across the spectrum of conflict.

Now, how well have we been able to resource that kind of an Army?

ARMY PROGRAM BALANCE
FOUR PILLARS OF DEFENSE

(PERCENT TOA)

	READINESS	SUSTAINABILITY	MODERNIZATION	FORCE CHANGES
FY85	69.5	7.9	22.6	0
FY86	74.6	6.2	18.9	.3
FY87	75.0	7.6	16.3	1.1
FY88	75.4	6.8	17.0	.8
FY89	76.3	7.3	15.7	.7

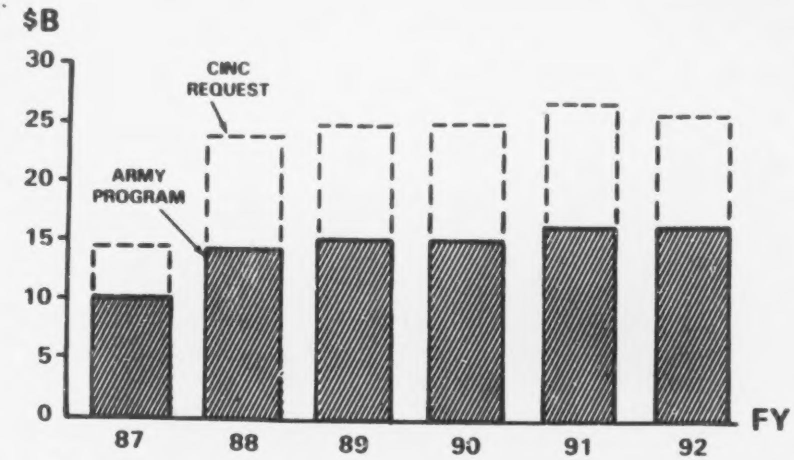
In terms of the Four Pillars of Defense, here is how we have tried and I think there is a good message here. It shows the percent of total obligational authority over 5 years—the past 3 years, plus the 2 years that are before the Congress now.

You see, we have been pretty consistent in terms of resources going to readiness. That is what the CINCs want. I know because I have been a CINC. The CINCs look to near-term readiness and sustainability and they are not interested in long-term modernization, because war may occur tonight or tomorrow. I think that we have done right by them in terms of readiness. We have also done right by them in terms of sustainability. You see that not much changed in percentages there.

What has happened, of course, as fiscal resourcing has come down, we have had to take it in the chops in modernization. This is where we have cut back. That is why we have not bought enough helicopters and tanks, for example, and I will speak more in a moment about that.

We have not done much in force changes here.

SUPPORT OF CINC REQUIREMENTS



. . .$76B OF $125B REQUESTED

This chart shows how we have done supporting the CINCs requirement. Yesterday you were shown a slightly different chart and this is basically the same one. The CINCs wanted $125 billion over the Five Year Program shown. Overall, we have been able to support about $76 billion. Where can we not support them? Basically in sustainability and munitions. One day of supply for the U.S. Army worldwide in end items, secondary items and munitions is over $2 billion. That is largely what this deficiency shows. However, we are making great progress in sustainability.

Chairman NUNN. General, what does that tell us about our economic capacity to fight a long war?

General WICKHAM. Every mobilization exercise that we have run in recent years demonstrates that we have a long way to go in building an adequate industrial mobilization base in the United States. It takes us 18 months or 2 years to develop increased capability for production of major end items. To improve our tank and Bradley production for example, it probably takes us longer. Even longer for ships and aircraft.

Chairman NUNN. Do the other services have a per day cost of sustainability? Could you develop that? It would be very interesting to add those together and then multiply it by about a 100 day war, and then talk to the Treasury Department and our economic group about whether we indeed have gotten ourselves to the point where we have priced ourselves out of the capability of fighting a long war.

[The information follows:]

USAF Per Day Cost of Sustainability

Presently, the USAF does not have a per day cost of sustainability. An estimated per day cost of USAF sustainability will be developed, but will be dependent on the scenario selected. A complete response will be provided after consultations with the Army officers who provided the estimates.

MARINE CORPS PER DAY COST OF SUSTAINABILITY

Sustainability costs for expendable items such as ordnance, battle damage repair, and spares would be approximately $1 billion per day. Replacement costs for aircraft and ships lost in combat are not included in the figure for sustainability because of the uncertainties involved in combat scenarios and losses. Our studies suggest that under certain adverse circumstances, replacement costs could range up to as much as $0.8 billion per day.

Chairman Nunn. I have suspected that for a long time, but I think the pure economic reality, although I know we make huge sacrifices in any kind of war——

General Wickham. Well, I think I have made the point. I cannot do it any more precisely in the open session here. The requirements we have been working toward resourcing are higher than NATOs. We have made great progress here, thanks to the commitments of the Congress.

These are smart munitions, modern munitions. We have many months of supply of older munitions, but they are not necessarily the kinds of munitions you want to use against the most sophisticated type of vehicles that we might have to kill.

Chairman Nunn. That figure you gave, General Wickham, does not count any additional manpower cost? It is just materials, is that right?

General Wickham. It is made of three elements. That $2 billion includes replacement tanks, Bradleys and artillery, that kind of end item. It also includes the secondary items that are needed to fix them: engines, transmissions, and that kind of thing. Third, it includes munitions. This adds up to over $2 billion a day worldwide wartime requirement for the Army.

Chairman Nunn. And what is the Army's total budget in the year?

General Wickham. Well, sir, what is before the Congress now in fiscal year 1988 is about $79 billion.

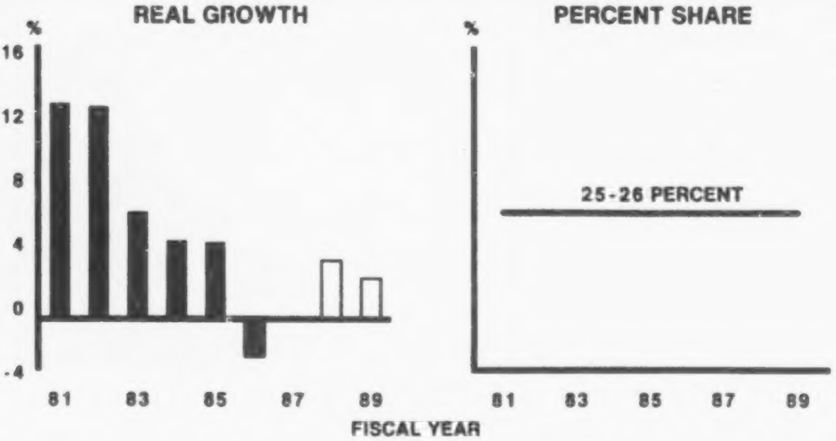
Chairman Nunn. You are saying a war of the duration called for in the defense guidance just for the Army in materials alone would double the Army budget, more than double the Army budget?

General Wickham. As you know, sir, during 1944 and 1945 in World War II, 45 percent of our gross product went into the military. So, if we got into a war a lot of things are going to have to change in this country and I am not telling you anything new.

Senator Cohen. Mr. Chairman, that figure of $78 billion, 50 percent of that is manpower, is it not?

General Wickham. At least. So yes, if you look at the $79 billion for fiscal year 1988, there is only $16 billion for procurement.

ARMY RESOURCE TRENDS



CHALLENGES vs. RESOURCES

This chart shows what the Army has done in resource trends. This administration came in with a substantial real rate of growth. However, in 1986, we experienced negative real rate of growth and in 1987 it was zero. In the budgets that are before you now, we have a modest real rate of growth, 3 percent in 1988 and 2 percent in 1989. The Army's share of the defense dollar has not changed much in 5 years, 25 to 26 percent; a little bit of a change but not very much.

What does that tell us about the strategy? Well, it tells us that a lot of commitments are immutable, and we have to maintain those commitments, such as strategic modernization, et cetera. I would like to see more money come into the Army, but the allocation of assets is not based on equity. It is based on needs, our strategic needs.

CONCERNS

- MODERNIZATION
- DOD REORGANIZATION ACT (TITLE IV)
- R & D INVESTMENT
- MAINTENANCE & READINESS
- OFFICER REDUCTIONS
- SOLDIER & FAMILY PROGRAMS

The last thought I leave with this committee are my concerns. This is my last time to appear before the committee as Army Chief of Staff. After 41 years in the Army, I leave the Army with some concerns that I think this committee and other committees need to wrestle with if we are to sustain the growth of our modern capabilities.

The Army is only 30 percent modernized. We need to sustain that modernization if we are to assure deterrence.

The DOD Reorganization Act is good news. I think there are some areas where we need some help from you in working out a practical model for getting our officers more joint experience, and that is in Title IV. In looking at this, we have done some extensive modeling with our officers and profiles for them.

I am not sure that we can produce the joint dimension that the Congress asks for. For example, I have had 16 years of joint duty out of the past 19 and I could not qualify as a general officer under the DOD Reorganization Act.

Chairman NUNN. Why is that? Your joint duty would not count?

General WICKHAM. No sir, because of the stringent requirement that as an O6 or below you had to have 3½ years in one joint job. I had a multiple of jobs, a year here, 2 years there, and 3 years there. As a general officer, the law says you will have one continuous 3-year assignment.

The first 3-year assignment I had was as a Commander in Chief in Korea. I had many other joint assignments as a general, but they were all shorter. So I think we need some flexibility.

Chairman NUNN. I think we are willing to take a look at that. In fact, we invited that kind of—we had some apprehension about that as we talked to you last year, and the conferees put a provision in inviting you all to let us know how that was going.

General WICKHAM. We look forward to that. I just want to say that we are not knocking the act. I am not. I support the bulk of the act, but we need, as we work our way toward executing it, some fine tuning.

Let me next address my concern on our research and development (R&D) investment. As we move down the road, pulling down our investment accounts, the danger is that we want to invest and not put into R&D. We have to have a balance here. There are some major programs of research and development in all of the services—in the Army the Light Helicopter Family LHX, and our antitank missiles—that we need to protect for the future. We need to leap ahead with technology if we are to maintain leverage over the threat.

In my concern for maintenance and readiness it makes no sense to buy new items when we have got a buildup of backlog in depot repair. So we have to be careful that as we bring down the allocations going to the services we do not undo this account.

In the areas of officer reductions, as you know, the Congress mandated 3 years of officer reductions. One percent in fiscal year 1987, and we are all taking that cut; 2 percent in fiscal year 1988; and 3 percent in fiscal year 1989. I respectfully urge the Congress to reconsider the fiscal year 1988 and fiscal year 1989 reductions. For the Army to take those reductions, we are talking probably 5,000 lieutenant colonels and colonels and majors with combat experience that we have to let out of the Army in a reduction in force.

My last concern rests with soldier and family programs. As we move into this era of tighter fiscal funding, we need to be sure that we sustain the quality Army, the best Army I have seen since I have been in it, in terms of soldier benefits and family benefits.

Thank you very much.

[The prepared statement of General Wickham will be retained in the committee file for future reference.]

Chairman Nunn. Thank you, General Wickham.

General Kelley.

STATEMENT OF GEN. P.X. KELLEY, COMMANDANT OF THE MARINE CORPS

General Kelley. Thank you, Mr. Chairman.

I believe the bulk of the information and the kinds of questions that you asked of General Wickham are contained in my formal prepared statement, so I will not dwell on those. But I would like to make several observations, picking up where General Wickham left off.

One of them is that we should have a clear understanding that, by the very nature of the individual statutory responsibilities I have as a service chief by law and what the unified and specified combatant commanders have, we are not always going to agree on resource allocations or how the services do allocate their resources.

As General Wickham clearly said, the commanders in chief have as their first priority, readiness and sustainability; that is the way it should be, and I totally agree with that. On the other hand, while it is obvious that the Marine Corps recognizes the importance of readiness and sustainability, I think as a service chief you have got to understand that I also have to concern myself with equipment, modernization, family housing, morale, welfare, troop recreation, recruiting, quality people, benefits, and pay, to name only a few.

I emphasize, however, all of these in the end contribute to a thing called readiness. So we do have a common objective.

My next observation is on strategy. There seems to be a lot of confusion, because in my view, Mr. Chairman, the first and most important decision which must be made to avoid a strategy-force mismatch is whether or not we build our strategy on the premise that we must counter all Soviet aggression simultaneously around the globe.

Obviously, that is not the case, and I do believe that our current strategy fully recognizes that we cannot fight everywhere at once, but rather the strategy emphasizes the prudent application of our military power in those areas where it is strategically sensible and operationally achievable.

One of the great weaknesses in any national security strategy, I believe, and one that is most apparent to me these days is a lack of congressional support for appropriate security assistance. I know that Senator McCain made this point the other day and pointed out that over 80 percent of all of our security assistance goes to some eight countries, with roughly 3 percent, as an example, going to Central America.

While it is not within the total purview of this committee, it certainly is within any overall national security strategy, so I would urge congressional attention to see that this particular element gets its proper attention.

General Wickham went through the process, so I will not dwell on that. I would like to comment on your question, however, on how the system has changed. In 1978, as one example, I was the Deputy Chief of Staff for Requirements and Programs and was intimately involved with the development of the Marine Corps Program.

And I will say that the service chief at that time, during the whole year that we went through the program and budget cycle, had 2 hours of actual time with the Secretary of Defense. It was an adversarial relationship where one defended his budget, as opposed to a give and take relationship where all of the service Secretaries, all of the service Chiefs, and all of the unified and specified combatant commanders sit down and thrash out where we are short.

In answer to your specific question on how we have accommodated the CINCs' requirements, the Marine Corps has only one single area where we are somewhat deficient, and that is in our NBC. We are taking corrective action, but there is not any other area where we have not totally satisfied all the worldwide CINCs' requirements.

Chairman NUNN. You are saying the nuclear, biological, and chemical protection, the defensive systems?

General KELLEY. Yes, sir, that is exactly what I am saying. We are deficient in that. It is a recognized deficiency. We recognize it, the CINCs recognize it, and we are taking action to remedy it.

I think I will leave it there in order to allow my colleagues some time, because I think it is probably most important that we get to the questions.

[The prepared statement of General Kelley will be retained in the committee files for future reference.]

Chairman NUNN. Thank you, General Kelley.

Admiral Trost.

STATEMENT OF ADM. C.A.H. TROST, USN, CHIEF OF NAVAL OPERATIONS

Admiral TROST. Yes, Mr. Chairman. I too would like to submit my prepared posture statement for the record, because it indeed includes many of the charts and the comments that balance General Wickham's very fine presentation and cover the Navy aspects thereof.

I would note that the posture statement details the philosophy which underlaid our development of the fiscal years 1988 and 1989 budgets and describes in considerable detail the tradeoffs we made in order to retain a balance capability.

I know that the committee has had quite an extensive series of tutorials on strategy. I would like nonetheless to ask your forebearance for just a few minutes to give me, as the head of my service, the opportunity to give you my views in addition to what you already have.

Chairman NUNN. We would be delighted.

Admiral TROST. We, of course, have just recently seen the President's document on national security strategy and the Chairman of the Joint Chiefs of Staff more recently has appeared before this committee and stressed specifically the critical role played by maritime forces in support of our overall U.S. policy.

As Admiral Crowe pointed out in his testimony before you, he considers the cornerstone of any strategy which has global dimensions must be an ability to use the oceans for our own purposes, to protect our sea lines of communication between allies and resources, to strike an adversary offensively, prevent him from interrupting our own operations, and deny access to his overseas clients.

Maritime forces play a crucial role in supporting our military strategy, and I emphasize, in supporting. Given the realities of our geographic position, fronting on two oceans, maritime strategy and maritime superiority are vital to the support of alliance relationships and the support of our forward deployed forces.

While maritime superiority depends predominantly on the capabilities of naval forces, land-based air forces and the naval forces of our allies also contribute to its maintenance in extremely important ways.

Maritime power enables us to capitalize on Soviet geographic vulnerabilities and to pose a global threat to Soviet interests. Maritime superiority and maritime power play a key role in combatant commander's plans for the defense of allies in the Western Pacific and on the European flanks. It ties down Soviet forces in a defensive posture protecting Soviet ballistic missile submarines and the flanks of the Soviet homeland, thereby minimizing the wartime threat to the reinforcement and resupply of Europe by sea. By posing a threat to the flanks and other non-engaged areas, maritime power diverts both ground and air forces from the central campaign and thus contributes to the likelihood of success of land and air forces engaged in a continental campaign.

Critics of a strategy which stresses the need for maritime superiority have stated that wars are won on land, not by naval forces at sea. That statement is only partially true. While ultimate victory depends on forces engaging the enemy ashore, failure to win the battle for superiority at sea in a major conflict would clearly doom any hope for success ashore. Seapower is not exercised as an end onto itself. It is an essential ingredient of military power as a whole.

Essential to our maritime strategy, maritime power plays equally vital roles in peacetime. Mobile maritime forces, easily deployed in time of crisis, are traditional symbols of our Nation's will and capability to defend its vital interests. They have proven to be the force of choice in international crisis management for every U.S. President since the end of World War II. Naval forces provide a wide range of options to the national command authority and combatant commanders through their credibility, flexibility, and mobility.

Potential aggressors and troublemakers must take note of a fighting force which can apply force precisely and suddenly, independent of precarious supply lines, and independent of the need to land forces or request use of foreign bases or overflight rights.

Naval forces enjoy the unique advantage of being able to signal commitment and intent—and if necessary, menace—without violating national sovereignties, and once the need is past depart without signaling retreat.

And that really leads me to the key question, which is are our naval forces today adequate for the task and will they remain so in the future? In my 37 years of naval service and experience to date as Chief of Naval Operations, my observations are confirmed that the state of the Navy today is sound.

The Navy is a healthy and dynamic force, more ready than ever to meet national security objectives, and it will remain so for the near term. We continue to reap benefits of earlier decisions to strengthen our national defense, with delivery of tremendously capable surface ships, submarines, and aircraft, modernization of existing weapons systems, increased munitions and spare part inventories, and, most importantly, the unparalleled performance of Navy personnel who are the keystone to our success.

Career professionals, together with young men and women fresh out of high school demonstrate a standard of excellence that far exceeds the norm of American society. They have my admiration and my continuing complete support.

Combatant commanders today can rely on impressive war-ready naval forces to meet their requirements. Overall unit readiness levels are at an all-time high, increasing steadily and significantly since 1981 across all Navy warfare communities. All the functional components of combat readiness—personnel, training, supply—have shown corresponding improvements. Investments in readiness, the largest pillar of the Navy budget request, have delivered significant dividends.

Positive trends in sustainability are also evident, as previous investment in weapons procurement continues to pay off. Our ordinance stocks are 20 to 90 percent higher than they were just 6 years ago, with the greatest improvements in the high-tech weapons we and the unified commanders consider critical to the successful prosecution of a forward strategy. Since 1981, sustainability has by far been the leading growth area of the Navy's budget, averaging over 10 percent real growth annually.

I might note that we too, as General Wickham has noted, have a lot of items in our inventory which are considered obsolescent. So often when we gauge our capabilities in a certain area, we look at our capabilities to apply modern high-tech weapons to a particular problem. In determining our overall sustainability, we have to look carefully at our ability to sustain our forces with less than preferred weapons, many of which are in the inventory.

Most importantly, our combatant commanders can call upon an increasingly capable fleet of modern warships to meet their warfighting requirements across the full spectrum of conflict.

The Navy budget requests the minimum level of resources necessary to maintain our momentum. It requests two overriding priorities: safeguarding total naval capability, readiness and performance to most effectively meet the requirements of the unified commanders and support military strategy; and, as the most important factor in this objective, ensuring that we continue to attract and retain those quality people necessary to our continuing success.

Principal growth areas in the budget, as they have been for the past 5 years, are in readiness and sustainability, those areas which enable current forces to fight effectively and over an extended period. In my view, the obvious ability and resolve to wage protracted and global war against the Soviets is this country's primary conventional deterrent, precisely because it is the scenario considered most unfavorable by Soviet war planners.

The carrier battle group will remain the critical element in the Navy's ability to meet U.S. worldwide commitments in support of national strategy and combatant commander requirements. The unique capability of the aircraft carrier to provide a highly mobile umbrella of tactical air power will continue to be required for the successful accomplishment of two of the Navy's primary functions—sea control and power projection. Two of our aging aircraft carriers enter their fifth decade of proud national service in the late 1990's and must be replaced. These older ships, limited by age and size, can no longer be modernized and repaired to effectively match the Soviet threat of the 21st century. We have thus requested funding in this budget for advance procurement and initial construction of two carriers, CVN 74 and 75, to replace these aging units.

Chairman NUNN. Admiral Trost, Senator Warner has pointed out to me that on your chart on figure 15 you show only one CVN in the 5-year plan.

Admiral TROST. I will explain that. The second full funding comes in at 1993. We show long lead funding in 1988 and 1989. Then we show funding, the balance of the full funding required for the first carrier, in 1990. And in 1992 or 1993—I have forgotten which—we have the full funding. I think it is 1993.

Chairman. NUNN. So you have not dropped to one carrier?

Admiral TROST. No, sir. We only give you 5 years' worth so you do not know too much, Senator.

The acquisition plan for these two carriers was designed to take full advantage of previously proven economies resulting from multi-ship procurement, while ensuring a cost effective employment of the Nation's shipbuilding resources. Contrary to recent allegations, funds in our budget request before the Congress came from within funds already allocated to the Navy within the DOD fiscal planning top line.

The necessary restructuring of Navy procurement plans was accomplished in recognition of the need to take action now in order to meet the Nation's needs for an adequate defense in the time frame beginning a decade from now. And I will be pleased later to amplify that if you have questions.

In addition, there are several challenges that I believe need special emphasis and congressional attention. First, the Navy end strength increases are crucial because we have not accessed enough people to provide balanced fleet growth. We will endanger fleet support as well as retention if we inflict unreasonable sea-shore ratios on our entire force. Sea duty always has been and will be our top manning priority, but we are at the edge in the management of our career seagoing force and cannot further increase the burden on our people without a good chance that retention will begin to suffer dramatically.

I consider our personnel recruiting and retention programs as absolutely vital to maintaining fleet readiness and urge you to recognize the unique management requirements of a highly technical seagoing force. Congressionally imposed personnel end strength constraints of the past several years have resulted in a shortfall in overall manning of our growing Navy.

Manning has not kept up with the units coming into the fleet. Recent congressional direction to reduce officer end strength will, if carried further, drastically impact proper manning of new ship and aircraft squadrons approved in prior year budgets.

And I would certainly join General Wickham and my fellow chiefs in urging that you strongly reconsider extending those cuts in officer personnel beyond the current year. With your support in meeting our joint responsibilities for the Nation's defense, we can recruit and retain adequate numbers of high quality personnel required to ensure the continuing high level of readiness of today's Navy.

Second, I would note that the Soviet submarine force now includes several classes of nuclear submarines which incorporate major gains in acoustic quieting and combat systems sophistication. Continued advances in the quality of that force lead me to rank ASW as my central war-fighting concern. And I want to clarify: not the only, but my central.

The U.S. lead in anti-submarine warfare is substantial, but it is narrowing more rapidly than earlier estimates. And we must give increased priority to programs which improve our ability to detect and successfully prosecute a more sophisticated adversary.

To counter Soviet advances in submarine quieting, we have taken action to deliver the highest payoff in advanced concept ASW initiatives. I anticipate this integrated ASW management strategy will lead to significant, broadly based improvements in our anti-submarine warfare capability, and I urge your support for this effort aimed at sustaining our superiority.

Third, the physical condition of the Navy's shore support facilities has deteriorated, primarily because of underfunding for military construction and real property maintenance, resulting in a noticeable reduction in support for the fleet. This real property maintenance backlog is having an adverse impact on mission performance, on safety, health, and quality of life for our personnel. I urge strong support for our military construction and maintenance programs under our shore facilities life extension program. This is a long overdue plan, long overdue from us, designed to combine good business planning with prioritized objectives aimed at correcting our most serious degradations in our support capability by 1994.

In summary, Mr. Chairman and members of the committee, I am very high on the state of the Navy today, and I hope that my successor in his first report to the Congress will find that he has taken the helm of a Navy as strong as the one I have, and I hope this report to you will be as upbeat an assessment of the current state of the Navy as mine is today.

Whether or not he will depend in great part upon my efforts, but also on your efforts and continued congressional understanding and appreciation for the imperatives of maritime superiority and the requirements of our overall military strategy.

Thank you, Mr. Chairman.

[The prepared statement of Admiral Trost will be retained in committee files for future reference.]

Chairman Nunn. Thank you very much, Admiral Trost.

General Welch.

STATEMENT OF GEN. LARRY D. WELCH, CHIEF OF STAFF, U.S. AIR FORCE

General Welch. If I may borrow the unified microphone, I have submitted a statement for the record. With your permission, I will just make a few additional comments and get to the questioning.

Chairman Nunn. All the statements will be inserted in the record in total, without objection.

General Welch. I will forego any additional comments about the threat or the strategy or the process, as I think those have been adequately covered, except to say that we are guided by those considerations as we make very difficult choices in a resource-constrained environment.

However, considering those constraints, it is my judgment that the service authorization requests are well harmonized and that they underwrite reasonably well the strategy by meeting the needs of the unified and specified Commanders in Chief.

We continue to enhance the Air Force contribution to warfighting capabilities, while maintaining a balance between the needs of the nine unified and specified commanders. And I do need to stress that each of the unified and specified commands has different needs, and there is a need to balance those particular requirements.

We also work to stress the balance between the needs for readiness today and those investments required to ensure that we are also ready 5 years from now and 10 years from now. And quite frankly, the CINCs tend to be less concerned with the 5 years and 10 years from now than with readiness today, and we do need that balance.

Enough of the general comments. Let me briefly highlight a very few areas of Air Force support for the CINCs' highest priorities and also identify some areas of shortfall that are of great concern to the CINCs.

I will start first with strategic nuclear deterrence. The Commander-in-Chief of the Strategic Air Command and the Director of the Joint Strategic Target Planning Staff regards his greatest shortfall in this strategic mission area as the ability to target Soviet hardened ICBMs and launch control facilities and the Soviet command-warfighting structure.

The most effective near-term solution to that is, of course, the Peacekeeper missile, and we are urging the full deployment of 100 Peacekeeper missiles to address that particular shortfall. Given the foundation, we can then build on it with the Trident II D–5 missiles. Small ICBMs and modernized bomber weapons—that provides the most effective and the lowest cost approach to that overall problem. Any other approach costs more and provides less capability.

The CINCSAC and the other CINCs have also identified air refueling for Air Force, Navy and Marine Corps aircraft as a major shortfall. We are making progress at fulfilling that shortfall. However, budget constraints have forced us to stretch the enhancement of the tanker force, and that is simply one of the prices that we pay for the resource constraint.

Space-based systems also provide support to virtually every service, every unified and specified commander, and all the defense agencies. We are unable to meet all of the needs, but in my judgment the budget does very well in supporting the most vital areas—they are, surveillance, communication, navigation, weather, and strategic defense.

The tactical mission of the Air Force provides air component forces to each of the unified commanders with theater responsibilities. We are committed to ensuring that those forces are well trained, well equipped and well prepared to operate jointly with the other services.

That requires, of course, flexible tactical forces that are capable of supporting land and sea operations across the entire requirements, for both the present and future, we use a threefold approach.

First, in order to get the most out of what we have, we must provide adequate logistics support, and we are doing very well today. We are flying more sorties. That is, where just logistics support of the existing force will not meet the threat, we leverage the past investments in the equipment that we have on the ramp today with cost-effective modifications and upgrades to existing systems.

And, where we have reached the limit of that approach, we face up to the investment required to exploit available technology to produce the most affordable and effective new systems that we can.

We use a combination of all three approaches to provide the spectrum of support to both the AirLand Battle and naval operations in all the theaters.

Investments in readiness and sustainability have substantially increased the number of combat sorties that we can provide to unified and specified commanders. It has been a high priority with all of those commanders. One example is we can now generate over 90 percent more fighter combat sorties than we could in 1981. Every one of those sorties will be more effective because the equipment is more effective, the ordnance is delivered more accurately and at longer ranges, and the ordnance is itself more effective. That, of course, means better support for the AirLand Battle and naval operations.

However, full sustainability with preferred munitions is a high priority of all the CINCs, and we have much work to do to meet that particular need. We are currently engaged in converting the overall munitions stockpile into a stockpile with only preferred munitions in it, but that will take some years.

I mentioned the upgrade approach. Let me say that upgrades to existing fighters, tankers and special operations forces aircraft have greatly improved those systems' capabilities, at much lower cost than developing new systems.

I mentioned new munitions. Specifically, new munitions such as the AMRAAM and new air-to-surface munitions are multiplying the effectiveness of existing and upgraded fighter aircraft.

I must mention, though, that a good many of the CINCs have as a very high priority the ability to continue to provide tactical air support in the face of a growing enemy air superiority force. And with growing numbers of Soviet fighters that have the capability to locate and attack our low-flying aircraft, they are gradually gaining the ability to deny the low altitude sanctuary that we currently use to support the AirLand Battle and to support naval operations.

Only a very high performance air superiority aircraft using Stealth technology will overcome that problem. The Advanced Tactical Fighter does that. It is our single, new fighter development program in the request that we are presenting to you.

As to force structure, we are at present budget levels unable to fully meet the requirements of the CINCs. Increased fighter force structure is a high CINC priority. However, we are forced to pause at 37 wings, vice our earlier goal of building to 40, due to fiscal constraints and due to the need to divert about three wings worth of F-16s into the air defense force to replace obsolescent F-106s and F-4Cs. And we will complete that process by the end of fiscal year 1991.

All the theater commanders agree that conventional deterrence requires a greatly expanded airlift capability. We have greatly improved the existing airlift force with modifications to that force, the procurement of 50 C-5Bs, and the procurement of the KC-10s. But the long-range solution to that, of course, is the C-17 to support all the services, and we are proceeding with that program.

The theater CINCs have also identified a need for expanded Special Operations Forces to support theater operations. We are building Special Operations Forces to support the most demanding conventional needs, as well as to meet the special needs of counter-terrorism.

The airlift force for Special Operations that we are proposing supports the stated requirements of the three CINCs who are the largest users of Special Operations: the European Command, Pacific Command, and the Central Command.

Taken as a whole, this authorization request is carefully crafted in coordination with the unified and specified commanders, the other services and the component commanders to those unified and specified commanders and will provide them with the best air support obtainable within available resources.

I would be pleased to join my colleagues in responding to any questions.

[The prepared statement of General Welch is retained in committee files.]

Chairman NUNN. Thank you very much, General Welch.

We are going to the first-in, first-question rule because our committee voted overwhelmingly in that direction. So I am going to recognize people as they came in.

General Welch, would you repeat that about the number of sorties we can fly today compared to 5 or 6 years ago?

General WELCH. We can fly 90 percent more fighter combat sorties today than we could in 1981, when we began to put the emphasis on readiness and sustainability.

Chairman NUNN. Well, I think that is quite an improvement. And my question to you is, what place in the world do we have the equipment, the refueling, and the shelters so that would become relevant in a war?

General WELCH. We have shortfalls in every theater in our capability to deploy all of the available forces within the time frame that the CINC has requested.

Chairman NUNN. Then of what relevance is that to the warfighting capability of the United States, unless we are defending against either Canada or Mexico?

General WELCH. Well, let me address the overall demand for the forces by answering it this way. Certainly, looking at worldwide requirements of all the CINCs, they can beddown the full fighter force that we have and we can get the full fighter force in place within some reasonable period of time.

Our problem is that we do not have the infrastructure capabilities to concentrate this force in the numbers and at the places where we may need to do that.

[Additional information follows:]

CINC DEMANDS ON FORCES

Of course, we do have shortfalls in our capability to deploy all of those forces within the time frame that each theater CINC has requested. Every warfighting CINC would ideally have his combat forces in place and ready to fight prior to the beginning of hostilities, but fiscal realities and political constraints such as the European Troop Strength Ceiling make that impossible. The Air Force has, therefore, placed Strategic Mobility high on its list of priorities. Programs such as the C-141 stretch and air refueling modification, KC-10, C-5B, and C-17 procurement, increased Civil Reserve Air Fleet support, and additional airlift spares funding will increase our strategic airlift capability 40 percent since 1980.

In a European war, over 60 percent of all participating Air Force fighter aircraft would be flown in from the United States and bedded down at their wartime collocated operating bases (COBs). Our long-term program calls for over 70 COB locations, with 48 host nation arrangements complete today. For example, our most recent COB agreement with the government of Turkey provides us with the majority of the beddown required in the NATO Southern Region. We have made similar arrangements with our allies in the Pacific and continue to negotiate for firm commitments in Southwest Asia. Of course, NATO infrastructure funds are needed to complete all of the facilities required to support our aircraft in Europe.

Minimum essential facilities such as munitions storage, fuel, and dispersed aircraft parking are already complete or programmed at a majority of our European COBs. NATO long-term plans also include introduction of selected essential operating facilities and airfield survivability measures. These programs are becoming increasingly essential as threat airfield attack systems become widely deployed. Current programs to construct 500 new semi-hardened aircraft shelters will greatly improve survivability and our ability to generate planned sortie rates. Currently, the US funds 28 percent of the NATO infrastructure program and 100 percent of NATO eligible US unique requirements such as barracks, mess halls, family housing, etc. We're fully aware of our dependence on the air base to support the employment of airpower, and the Air Force is pursuing initiatives to identify shortfalls and establish funding profiles to support overall airbase operability.

Chairman **NUNN**. And you do not have a place to refuel nor a place to shelter those forces in any theater that I know. So the question, I repeat, is of what relevance is that increased sortie rate, which I agree is a marvelous improvement?

But of what relevance would it be in any war that we would have to fight that can be contemplated?

General **WELCH**. Well, I think there is a very high relevance. Let me give you an example of why I say that is the case. Our greatest limitation in Europe, for example, at this point in time is infrastructure. That is, we have more aircraft available to deploy to Europe than we have air bases and shelters and things to put them in.

That puts an even higher premium on the ability of the aircraft that are there. And the way we increase that sorties rate and increase those sorties and increase that capability is by providing a capability to provide each fighter that is on the scene at a higher sorties rate.

Chairman **NUNN**. What about the ones that are here in this country? Of what relevance is the increased sortie rate to any war, any theater, of the domestically based aircraft?

General **WELCH**. Of course, all the resources that I talked about except the aircraft themselves are totally fungible. These are spare parts that will support whatever aircraft that are in place to fly those sorties.

Just let me give you an example of sortie rates. In the Korean War we flew the F-85 about eight-tenths of a time per day. In the Vietnam War we flew the F-4 one sortie a day. In Europe, if we were to get into a conflict, in that war we could fly the F-16 four times a day.

All of those spare parts and all of those munitions that I have talked about investing in can be used to fly those aircraft at those rates. Our great problem, of course, is that we would like to get more fighter aircraft in place over there.

Nonetheless, the investments that we have made in spare parts and munitions apply to those aircraft in place and have tremendous relevance in the ability——

Chairman **NUNN**. I agree with you on the in-place aircraft, but I question the relevance of the improvement of those that are domestically based and we do not have any place to receive them or refuel them or shelter them in any kind of conflict that we can contemplate, either in Europe or the Middle East.

So we are going to have to start asking those hard questions about what relevance readiness is on domestically based forces that have no place to go and no way to get there and nothing to really do when they get there because they do not have the fuel and equipment.

And the same question applies to heavy forces in this country, tank forces that cannot be transported to any war in time to really make a difference. If we do not start asking those hard questions, we are just spending money on basically defensive mechanisms that would only apply if we were defending the domestic United States, which no one can contemplate at this point in time. And I think those questions need to start being asked, particularly in a time of tight budgets.

Let me ask you a question, General Welch. Have the Joint Chiefs completed their study about the effect on U.S. defense capabilities in budget requests of the President's proposal to go to zero ballistic missiles that was made at Reykjavik and is still on the table at Geneva?

General WELCH. We have very nearly completed that study. It is in the final stages of being wrapped up. Most of the Joint Chiefs——

Chairman NUNN. Could you give us your view right now in terms of what steps the United States would have to take if we go to zero ballistic missiles by 1996?

General WELCH. Well, I think at this level of classification we would be hard pressed to address very much of that. I think all the Chiefs would agree that perhaps the best characterization of that is that clearly it is possible to make such a transition; there are advantages to such a transition in restructuring of the forces, but it would clearly also be very expensive.

Chairman NUNN. Very expensive?

General WELCH. Very expensive.

Chairman NUNN. Would it require an increased defense budget?

General WELCH. Oh, I think most certainly.

Chairman NUNN. It would be a net increase in the defense budget?

General WELCH. I think most certainly.

Chairman NUNN. Can you give us some order of magnitude?

General WELCH. I would rather not.

Chairman NUNN. Is that a secret?

General WELCH. I am not sure.

Chairman NUNN. Would it be over $100 billion for the Air Force alone?

General WELCH. Well, I think my problem with that, Mr. Chairman, is that the study you referred to has not yet been submitted to the Secretary of Defense and the President, and I really think that——

Chairman NUNN. You want them to be shocked first?

General WELCH. I think it is inappropriate for me to be the one to break the news, one way or the other. [Laughter.]

Chairman **Nunn**. Well, we will look forward to that at the appropriate time, to getting into the details of that in both open and classified session.

May I ask one other question. Have the Joint Chiefs address—did the Joint Chiefs as Chiefs address the question of whether we need two new carriers? Was that discussed among the Joint Chiefs?

Admiral **Trost**. It has been discussed. In the early stages of the deliberation, Admiral Crowe provided a letter to the Secretary of Defense prepared by the Joint Staff which gave their views on costs, which I would, to a degree refute.

Chairman **Nunn**. Was Admiral Crowe speaking for the Chiefs or was he speaking for himself?

Admiral **Trost**. No, he was responding to a request for his input from the Secretary of Defense.

Chairman **Nunn**. So it was his personal views. What was his personal view, if you know it?

Admiral **Trost**. He has noted, of course, in his testimony to you the utility and importance of maritime superiority and support of the carriers. His letter to the Secretary of Defense, as I recall, took note of the cost and expressed his concern about the high cost of adding new things if it came at the expense of other things. That is the issue I hope you will give me an opportunity to address.

Chairman **Nunn**. Could I ask each of the Chiefs their personal view about whether the two carriers are the highest priority, or did you take a position on that in the Chiefs?

Admiral **Trost**. No.

Chairman **Nunn**. Did the other Chiefs take a position?

General **Wickham**. May I just speak for the Army?

Chairman **Nunn**. Yes, sir.

General **Wickham**. I am not about to blow my brothers out of the water here. We need resources in multiple areas. I am not going to speak for the Navy in any detail. The Navy does need to modernize, like the Army does. And the Navy has got a problem in terms of rotation and people at sea for a long time. So when you look at any one of these weapons systems, they all have merits on their own part. So do small ICBMs, for example. It all has merit. But the issue is the balance, and that is something I think that we all need to wrestle with. I would not give a thumbs-up or a thumbs-down on the carriers. I do recognize they have a need for them. I do not recall the Chiefs ever talking about it.

Chairman **Nunn**. Well, if you have not talked about it I would not ask you to give your views today. I thought the Chiefs had discussed it.

General **Kelley**. Not as an individual subject, but I think we always discuss force levels. And I find absolutely no inconsistency with what we have discussed in the past, and we have validated the requirement for the 15 carrier battle groups.

And General Wickham, as an example, cannot very well get those heavy divisions to Europe without some kind of escort support, which would include the necessary sea control that would be provided by the 15 carrier battle groups.

I have been around the joint system, not quite as long as John, but I have been around since 1971. I have to tell you that the first question that every decisionmaker asks when we have a crisis in this town is: Where are the carriers? That is the first question they ask.

So we have validated the requirement for 15 carrier groups. As a Marine, I can tell you in all honesty, I cannot conduct an amphibious operation without the necessary air support provided by the carrier air wings from a carrier. That is part of our fundamental doctrine. You cannot do it without air superiority, and carrier air provides the only reasonable alternative to gain air superiority——

Chairman NUNN. Well, I am really not asking a question on the philosophy of carriers. I think we can all stipulate that. What I am really asking is whether you all had addressed that as a matter of budget priorities in this budget. And I understand that you have not as Chiefs, as Joint Chiefs?

General KELLEY. We have addressed the carrier force level, and this is a replacement. In addition, we all agree there is a requirement for 15 carrier battle groups.

Chairman NUNN. Admiral.

Admiral TROST. If I could give my objectively biased approach on the subject, sir——

Chairman NUNN. This can come out of Senator Warner's time. [Laughter.]

Admiral TROST. I leave it to you.

I think there are two important issues——

Senator WARNER. And if the answer is right, I will accept it.

Admiral TROST. Given that the requirement has been validated in the past, there are two questions I think are pertinent for this committee's consideration. One is will that requirement still exist 10 and more years from now or will something in the world have changed? Our analysis says no, it will not; yes, the requirement will exist and nothing will have changed.

The next issue is is this a diversion of assets which were scheduled for something else? I am prepared to address that in detail, but I do not want to infringe on Senator Warner's time. But I am prepared to answer that question.

Chairman NUNN. I am sure we will get to it. My time has expired.

Senator Warner.

Senator WARNER. Thank you, Mr. Chairman.

I will lead off with you, General Wickham. You have been a participant in the allocation of funding for the branches of the services for many years. In your judgment, this year was the procedure followed to allocate funding for the Department of the Army fair, and did you get in your judgment a fair share of the resources allocated by the Secretary of Defense?

Senator WICKHAM. Senator, we were talking earlier about equity in allocating shares. I do not believe that that is an issue in the Department of Defense. We are looking to the commitments of the United States, historic and transient. We are looking to strategy. All of that in developing our Defense Guidance largely comes down to building on the extant resources to the services. There is a little push around from service to service. I think the Army had plenty of opportunity to express its concerns and its favorings for various programs that we believe are necessary to support the CINCs.

Senator **Wickham**. But the question here, General, is some of my colleagues in the Congress said the Army did not get a fair share of the resources. What is your answer? Did you or did you not?

General **Wickham**. I would like to have more resources for the Army.

Senator **Warner**. Did you get a fair share or did you not?

General **Wickham**. I will not answer that question as to receiving a fair share. I would like to have more resources.

Seantor **Warner**. Admiral, on the question of the carriers, let us look at it from a little different perspective. Has anything changed in terms of the threat to the basic interests of this Nation, be it terrorism or other forms of threat to this country, in the last 2 years and in the foreseeable next 10 years that would in any way justify the lessening of the carrier level from some 15 to a lower number?

Or to the contrary, has it changed to even suggest that we not only need the 15, but we could use more carriers?

Admiral **Trost**. I would say nothing has changed, Senator Warner. We have—and of course, we have endorsed in our planning forces in the past larger force levels required in order to reduce the level of risk that this country would face in carrying on its military requirements.

Senator **Warner**. But do you see the risk confronting us as changing, changing in such a way to add additional justification for the carriers?

Admiral **Trost**. I would, but once again I am a strong supporter of the utility of naval forces. I see the risk being one of increased instability in our world, which in peacetime demands the presence of rapidly mobile, flexible forces that operate from an international base, international waters.

In wartime, I see no dimunition of either the quantity or the quality of forces that we would face which would threaten this country's defense and national interests.

Senator **Warner**. If anything, our strategy in the years to come would be more dependent on flexibility, would it not?

Admiral **Trost**. I would think so.

Senator **Warner**. And integral to flexibility are carrier task forces?

Admiral **Trost**. They are without question an integral element that in some respects underlies our capability to carry out other actions.

Senator **Warner**. Now, you wanted to have an opportunity to address the question that applies not only to carriers, but all new starts throughout the Department. We the Congress have got to weigh the priorities of allowing new starts against trying to finish out at some reasonable unit cost price those contracts now in existence.

How did you arrive at the decision with the Secretary of Navy that you felt that you needed a new start in carriers vice lowering your unit costs or maintaining your present unit costs, say, for aircraft or other production lines?

Admiral **Trost**. Let me begin with just one historical note. When we submitted our fiscal year 1984 budget to the Congress, it contained an aircraft carrier fully funded in 1988, with 2 years of long lead funding prior to that. That was dropped the next year because at that point in time we were sufficiently confident in the viability of our service life extension program for existing carriers to feel that we could lengthen their service life from 30 to 45 years. Given that, we deferred the new start for the carrier. Additionally, we anticipated that that new start would be sometime in the nineties.

With the fiscal constraints that have been showing up increasingly in the actions of the Congress in our 1986 and 1987 budget requests, we had to do a complete review of where we stood, what our new planning top line might be, and take a look at our priorities and how best to meet them with the funds available.

It became apparent that nothing had changed. We had a requirement to replace carriers that would be 50 or more years old in the nineties, since we must maintain the force levels which are currently considered as the minimum required.

We then looked at how best to buy those assets most economically in the long-term program. We have experience now in procuring carriers on a multiple buy basis, with the attendant economies and efficiencies of being able to buy two ship sets or order two ship sets to ensure an industrial base over a reasonable period of time, to get competition wherever it is feasible. We know, for example, that we received delivery of the *Theodore Roosevelt*, our newest carrier, last October, early, because the work base existed and the efficiencies of multiple procurement permitted that ship to be delivered earlier at a savings.

We also know that the two carriers now under construction are going to save a very considerable amount of defense dollars because of that procurement process.

We recognized, too, that the workload and the workforce in the only shipyard in this country that can build the aircraft carriers was going to decline. It did not make sense to us to send good trained people home now if we could use them to buy carriers at a lesser price.

The procurement that is proposed in our budget with the 1988 and 1989 long lead time does just that. It buys at the most efficient price and lets us get the replacement carriers in the time frame we need them, starting in the 1997 and later period.

Senator **Warner**. Admiral, I am going to have to interrupt. I have barely enough time for one additional question, and you can provide for the record your additional response.

General Welch, in view of the fiscal constraints facing the Congress, we have got to determine whether or not we can afford a new start, namely the R&D for the rail-mobile system. I personally support both Midgetman and rail-mobile. I see that they are mutually supportive.

But if we are forced to a decision based on fiscal constraints, at what time should we try and make that decision as to whether or not to proceed with a rail-mobile system or continue with the Midgetman program?

General **Welch**. We are asking this year only for R&D money for rail garrison for the Peacekeeper system. We are highly confident that the system will work. It is very straightforward, it is not very difficult. Nonetheless, we do need to do some R&D work.

We agonized over the total cost of the ICBM program, and within the Air Force budget, as you know, within our top line we accommodated rail garrison R&D and full-scale development for the Small ICBM.

Clearly, our highest priority, which was well stated by CINCSAC for several years, and I agree with the commander in chief out there in this case, is to get on with the Peacekeeper. But at current budget guidance levels given to the Air Force, both of them make our priority cap.

Senator WARNER. You are suggesting we need an additional body of facts, which would be supplied by the R&D to be performed in this fiscal year, before we should try and, if forced to do so, reach a decision to choose between these two systems?

General WELCH. I would think that would certainly be a prudent approach, yes, sir.

Senator WARNER. Thank you.

My time is up, Mr. Chairman.

Chairman NUNN. Thank you, Senator Warner.

Senator Dixon.

Senator DIXON. Gentlemen, Dr. Larry Korb, a former high level OSD official, testified recently before this committee that the administration defense buildup was front-loaded in favor of major weapons systems. The expectation, according to Dr. Korb, was that as these weapons came into the force manpower and support equipment would then be purchased.

Well, of course, Gramm-Rudman-Hollings and fiscal reality have set in. The question is for each of you, given the large investment in new weapons in the last 5 years, does the current 5 year defense plan contain sufficient funds to operate and sustain this new equipment under your jurisdiction?

And could I start with a short answer from General Wickham?

General WICKHAM. The short answer to that is that we have had to make some serious cutbacks in what we had hoped for 5 years ago when this largesse began. Given the cutbacks that we have made in the Army and the projected 3 percent real rate of growth that we have in the 2 year budget, I think if we can sustain that. Then we can continue to sustain the forces in the field and sustain a reasonable level of modernization.

I have had to cut back at least a dozen systems, major systems: the Bradley, the M1 tank, the AH-64 Apache. We have had to kill programs—the AHIP, the Advanced Helicopter program, for example—in order to stay within the fiscal boundaries.

Senator DIXON. General Kelley.

General KELLEY. There is an element of truth, but there is a lot of reasons for it. Senator let me just take manpower as one example. We build, in a compatible way, all of our requirements for modernization, for force structure, and manpower, and then send them up to the Congress.

In the case of the Marine Corps, as an example, we are procuring equipment that is compatible with a slight growth in terms of end strength. And the Congress has for the last 3 years or 4 years halved our request for manpower.

So, therefore, you do have a disconnect; but it is not one that you can do much planning for, because there are so many unforeseeable elements that actually influence your budget and consequently your manpower level. And yes, there is an element of truth to that, but I would not say that it is a dramatic problem that we cannot cope with.

Senator DIXON. Admiral.

Admiral TROST. I would not agree with Dr. Korb that the problem is of the magnitude that he notes. We have made quite an effort, and I think it has been borne out by the budgets and the programs that we have submitted over the past several years, to provide for balance in our programs.

We look at what we can procure while still maintaining the necessary readiness, personnel, strength, and stability of our forces. We think we have pretty good balance. We have had to, because of these fiscal realities and especially the cuts to our budgets of the past 2 years specifically, made some pretty drastic reductions in some programs which were begun on the premise that they would seek continuing support.

So to the degree we have cut back there, yes, we have seen things that were not affordable. The current program as submitted to the Congress is supported, by the budget that is now before you. It would enable us to carry out our programs in a balanced fashion and execute the programs we have before us.

We would find ourselves at the end of 5 years with somewhat less total capability in both force structure, modernization, and operational readiness than we have right now, that we had planned to have at that point in time.

Senator DIXON. General Welch.

General WELCH. The short answer is that the 1988 budget and the 4 years subsequent to that accounts fully for all the manpower requirements and all the support requirements and all the support requirements for every major end item in the Air Force budget. But of course, as budgets unfold and we end up with something less than what we expected when we turned it in, we make year to year adjustments.

For example, the 1988 budget reduces the expected tactical fighter force by three wings and it gives up a C-130 squadron. Those are all not because we did not account for the total costs when we put the budget in, but because the budget did not materialize as expected when we laid out these programs.

Senator DIXON. Admiral, if I could follow through with a little more specificity with you, the fiscal year 1988 budget request for Navy aircraft spare parts is $120 million below the 1987 level and $235 million below the level projected in last year's budget for 1987.

Is the Navy's aircraft spares program being sacrificed to buy the two new aircraft carriers?

Admiral TROST. No, it is not. Several factors lead to that reduction in funding levels.

One is cuts made in the past which impact on the ability to proceed. We took a very hard look at the actual execution of many of our procurement programs, which we do every year, we found that for various reasons—one, the inability to get things on contract as rapidly as we had in years past; the other the inability to plan on a certain level of stability over the years, which resulted in certain parts manufacturers not being as interested in our business—the overall result was executability of the programs was not as rapid as it had been.

We took the money out because if we had not, your committee members most certainly would and the Appropriations Committee certainly would, and we reallocated those funds to other things. This had nothing to do with aircraft carriers, however.

Senator DIXON. General Wickham, the Army ammunition budget request for fiscal year 1988-89 is $2.2 billion. That is below the amount appropriated for the Army's ammunition accounts in every year from fiscal year 1982 through fiscal year 1986.

And my question is, how are we ever going to increase sustainability of improved conventional munitions in the Army if you keep reducing your budget request in this area?

General WICKHAM. It just stretches sustainability out, Senator and it is going down. We have had to make some hard choices and we made major commitments, as we indicated to Senator Nunn earlier, in the past 4 or 5 years in improving our substainability in Europe, substantial improvements. But one of the areas we had to cut back on is in sustainability, and we have had to cut back in munitions modernization. We have three times the munitions deployed that our allies do in NATO, and I think we have got to get more out of our allies in terms of sustainability, and we need to be very careful about where we invest future funds there. What we have tried to preserve in the ammunition accounts are modern munitions, improving the quantity of modern munitions as opposed to the standard conventional type munitions. Where we have cut back is on the standard conventional munition accounts.

Senator DIXON. General, on page 60 of your joint posture statement with Secretary Marsh you list a number of deficiencies in this year's Army budget: slowing wartime sustainability, reduced operating tempo of major weapons systems, little or no increase in flying hours for helicopter crews, an increase in the backlog of depot maintenance, an increase in the backlog of real property maintenance, stretching out procurement buys.

Is it not fair to say that most of these deficiencies are in the area of readiness and sustainability?

General WICKHAM. Actually, the flying hours goes up a bit, from 15 hours to almost 16. I am a big supporter of flying hours because it is related to safety. Incidentally, last year the Army had the safest aviation safety record in its history, and we flew more hours. So I think it pays off.

In the area of depot maintenance, yes, we have cut accounts. That is another area where we are trying to build a balanced program. I am against it, and when we had a chance in the Defense Resources Board to put some more money back in, depot maintenance was the first priority, to bring it back up. It is a known deficiency.

The ground operations tempo of our tracked vehicles is 750 to 850 miles per year. We think that is sustainable, and we think that leads to good combat readiness but we would like to do more. We have to make some balanced cuts here.

Senator DIXON. I thank the Chair.

Chairman NUNN. Thank you, Senator Dixon.

Senator Cohen.

Senator COHEN. Thank you, Mr. Chairman.

General Wickham, I was pleased to hear you praise Senator Nunn, and indeed even Senator Warner, for some of the initiatives they have brought to bear here in the Congress. I was struck almost that it seemed to be tantamount to praising Caesar after he survived a knife assault on the way to the Senate, which is not to suggest that Senator Nunn is the equivalent of an American Caesar.

But nonetheless, it seems that any change in the status quo or challenge to the status quo metaphorically almost becomes one of the anvil outlasting the hammer. There is always tremendous resistance to initiatives coming out of Congress as being either wrong-headed or misguided.

And I noticed from your statement you thought, apparently, that some of the initiatives concerning reorganization and other matters were to be commended, even though they might be too rigid in their application, but nonetheless were positive developments, is that correct?

General WICKHAM. That is correct, sir. As I think all of us testified here last year—Admiral Trost was not here then and I do not think that General Welch was; but the other two Service Chiefs did—that many of the initiatives in the defense reorganization bill were a codification of improvements already made. The other initiatives which were not codification—and I speak for myself here—by and large make good sense. As I testified earlier there are some things that we are going to have to work out in terms of flexibility here. I would not characterize the defense reorganization bill as a knife assault, the way you did.

Senator COHEN. No, no. That is not what I was suggesting. I was suggesting that DOD was waging some sort of guerrilla warfare against Senator Nunn and others as they moved the reorganization bill.

General WICKHAM. Now, I know you would never suggest that the DOD runs a guerrilla warfare campaign.

Senator COHEN. Low intensity conflict, special operations. [Laughter.]

I think the whole discussion on the aircraft carriers is perhaps a prime example of the kind of issue we are trying to deal with. I know that General Kelley feels very strongly about the aircraft carriers, as does Admiral Trost, and rightly so.

I assume that, General Welch, you are more concerned at this point about F-16s and F-15s and adding wings that have been either deleted or deferred. And you, General Wickham, have not even touched upon the problems dealing with armor and anti-armor deficiencies, which apparently, according to the Army's report, are reaching alarming proportions vis a vis the Soviets.

So to see the kind of weighing of priorities that would take place only emphasizes the kind of issues that we were trying to come to grips with last year on whether or not to strengthen the Chairman of the Joint Chiefs.

General Kelley, you indicated one of the major problems we have is lack of adequate assistance to various countries. General Gorman indicated the exact same point when he testified, but he made another point. He said the United States can no longer be of much material help to any third world nation wrestling with low intensity conflicts because this Nation no longer produces the sort of inexpensive, simple and rugged military equipment they need.

What is your view about that?

General KELLEY. I would agree completely with that. First, when you are looking at the level of sophistication of any weapons system that you give to a foreign country, there are two aspects to it. One is actually what they need and then there is another intangible aspect, Senator Cohen, and that is a symbolism.

For instance, for a third world power to consider themselves a first-rate power they will naturally go for the more modern, sophisticated weapons, even though, taking the example of an aircraft, it may sit against a fence, but it is the most modern and sophisticated.

That is the fine line we always walk with third world countries in terms of convincing them what their actual needs are for their threat, as opposed to a symbol. So I completely agree with General Gorman in principle.

General WICKHAM. I would just add that I am not sure I agree with him. I think that the United States does produce, maybe not totally in the military line, but in the commercial line, adequate capabilities for countries that need military capabilities in a low intensity conflict area. We do produce helicopters that are germane to areas of low intensity and we do produce weapons that are germane. Now, we do begin to spread some sophisticated equipment also, like Stingers and systems like that.

Senator COHEN. What about something comparable to the DC-3, which is old and outmoded and could be replaced by, let us say, a C-130, which may not be combat maintainable as far as a third world country?

General WICKHAM. Of course, the Canadians with American resources and American equipment such as engines, do produce the Buffalo and the Twin Otter in this hemisphere, which are very capable aircraft. So I think the capabilities are here and I would not totally agree with him.

Senator COHEN. General Wickham, I think several members of these who have testified this morning have testified we need to draw a distinction between Special Forces Operations and low intensity conflict. Both Senator Nunn and I are aware of the distinction. In fact, when we created an Assistant Secretary of Defense, it is for Special Forces and Low Intensity Conflict, and that is indeed the reason we set up a coordinating board as well within the NSC to make sure that we draw the appropriate distinction.

Last year the Army issued a report—this was in August of last year, I believe—that as a nation we do not withstand low intensity conflict; we respond without unity of effort; we execute our activities poorly; we lack the ability to sustain operations short of war; we have no strategy or comprehensive plan to address the challenges of political violence.

Now, has the Army changed its opinion since that report was issued?

General WICKHAM. I would hope that is not an Army report entirely, because I think we have the capabilities to deal with low intensity conflict and I think we tried to develop a strategy to help our friends deal with it. One of the strengths of and difficulties with Special Operations Forces (SOF) is that they are employed across the whole spectrum of conflict. As you know, our Special Forces and our Rangers are used in support of our most intensive operations plans. They go to Europe in support of the Europeans in the European theater, for example. So to say that the SOF forces are totally dedicated to low intensity conflict is an error. On the other hand, the efforts of the Congress and the Department of Defense to improve our SOF capabilities, and there have been substantial efforts here in the recent years, are all to the good.

Senator COHEN. Assuming the unified command is not located here in Washington, if that is the case, do you think there should be a headquarters element of the Special Forces located here in Washington?

General WICKHAM. There probably will be the need for a liaison element here.

Senator COHEN. General Kelley.

General KELLEY. You have massaged a very tender nerve on that one, because I have long felt that one of the most successful operations I have ever seen was a third called the Washington liaison office that we had with the Rapid Deployment Joint Task Force.

And I am not talking about a poor colonel liaison officer who is trying to do a thousand things at once. I am talking about a functional group that can represent a commander in chief's requirements in a coherent way. And we have now given the commanders in chief a lot more authority, particularly in the programming and budgeting process.

So in my professional view, I would like to see every CINC have a Washington element called a Washington liaison office or whatever.

Senator COHEN. My time is up.

Senator EXON [presiding]. Senator Glenn.

Senator GLENN. Thank you, Mr. Chairman.

I guess we are in the middle of a vote here, so we are going to have to move in and out of the hearing.

SHOW OF FORCE IN MEDITERRANEAN

We have a massive show of force right now in the eastern end of the Mediterranean. What is the purpose of it? What is their mission, Admiral?

Admiral TROST. Well, sir, I would have to defer that to the theater commander who has them there. I understand their mission is primarily to be ready to respond if U.S. military force is called for in the event of execution of hostages or the need to withdraw personnel from areas where they are threatened.

Senator GLENN. We have amphibious forces involved. We have quite a flexible force there. And if there is one thing I thought we had learned in the Mideast, it is that we cannot bluff.

We are dealing with widely dispersed terrorists. We put 1,600 marines in Lebanon as a show of force and wound up with 241 dead. The 1,600 marines were supposed to be a show of force and we believed they would not dare do anything to American forces.

And once again I think we are just using a Great White Fleet-type of tactic against dispersed terrorists.

Admiral TROST. Senator, once again, I cannot speak for the actions of the unified commander who has dispersed those forces. They are forward deployed under his operational command. I know of no plan to utilize them.

Senator GLENN. But I am sure you are kept informed of what is going on there and the reasons for it. And the Joint Chiefs meet several times a day on this, I trust.

Admiral TROST. I am aware of their presence. I would not be able to comment here on what potential uses they might have.

Senator GLENN. OK. Well, one other thing. Was the TV report accurate this morning about the Navy's Middle East Force inside the Persian Gulf, heading north in the Gulf?

Admiral TROST. They were there, routinely deployed in the Persian Gulf. The *LaSalle* is the command ship for the Middle East force which routinely operates in the Gulf, and two ships of that group——

Senator GLENN. Yes, I know. But they normally stay south of Bahrain. They do not usually go north of the Strait of Hormuz.

Admiral TROST. They do operate north. Two of the ships were operating further north than they routinely do during the period of the summit meeting in Kuwait.

Senator GLENN. OK. Are they within missile range of the missiles that Iraq fired out at some of the tankers and so on? Are our ships getting up within range where they could possibly come under that kind of fire?

Admiral TROST. Our ships throughout the Gulf, all the way down to the Strait of Hormuz, could be under that type of danger if the Iraqis decided to shoot at our ships, yes, sir. The Iraq missile attacks have been aircraft attacks on ships down into the southern portion of the Gulf.

Senator GLENN. Well, I just get very concerned when I see these shows of force. We are no longer dealing with a fixed force that we can go in and confront with normal military power. We are dealing with dispersed terrorists.

And I think if there is one thing we should have learned, it is that we cannot bluff. And it seems to me that is what we are doing right now. Otherwise, we are farther along on General Kelley's spectrum of conflict table on page 10 that shows peacetime presence, going to surveillance, show of force, use of force, limited war, global conventional, theater nuclear and then strategic nuclear war.

We are about halfway down that curve. We have gone from peacetime to surveillance to a show of force. The next step is the use of force, and that is halfway down the total curve.

General KELLEY. I would say that somewhere in there there is a thing called prudent precautions. As you know, we have had a Marine Amphibious Unit in one configuration or another in the Mediterranean since 1949. It is there for use in those kinds of contingencies that the commander feels may be necessary.

This happened to take place right now during an overlap of two Marine Amphibious Units. One is being relieved, and one is relieving. Therefore, in the opinion of the commander in chief I would imagine it is prudent to let them remain there until we see how the tensions do play out.

Senator GLENN. Perhaps. But as the White House spokesman said yesterday: "Our forces are there on what in many ways are normal activities and operations." If anybody believes that, they believe in the tooth fairy or something. That is just not true.

General KELLEY. Well, but if you had a tense situation in the eastern Mediterranean it would not be very prudent to have your Marine Amphibious Force over in the western Mediterranean.

Senator GLENN. I agree with that. But I think the massing of such a large force as we have there right now is a show of force. And I do not know whether it is the right tactic.

We are up against terrorists. We are not facing a conventional threat.

I do not know who we are bluffing. I guess that is my problem. And I am concerned about putting people in harm's way unnecessarily.

Mr. Chairman, I am going to have to go vote. However, I would ask unanimous consent that we be permitted to submit questions for the record.

I wanted General Wickham in particular to get into some of the Reserve Force capabilities. You are completely dependent on Reserves in a combat situation. I am curious about the status of readiness of these Reserve Forces.

And how the Joint Chiefs are operating in view of the Goldwater-Nichols reorganization. I am particularly concerned about that area.

Thank you very much.

Senator EXON. Thank you.

We are awaiting the return of the chairman. Then I will go over and vote.

Let me ask this question, first of General Welch. General, I was interested in your remarks in response to a question asked earlier about the amount of funds that are going for research and development on the Midgetman and the rail-mobile deployment of the MX.

I take it, General, that you feel that rail deployment of the MX would certainly be a stronger position from a deterrent standpoint than the MX based in the Minuteman II and III silos?

General WELCH. Well, I feel that the rail garrison certainly adds more stability in crisis.

Senator EXON. Given that, has there been any thought given to the proposition or the possibility of moving some of the original 50 MX's that have been authorized for silo basing to the rail garrison mode instead?

General WELCH. Sir, the rail garrison mode would accommodate that, assuming everything works out as planned. That will be in 1991 or so before we would be prepared to do that, of course. But it will accommodate a rebasing if that seems to make sense when the time comes.

Senator EXON. Why 1991? That is my question. That is what I was leading to. I suspect that is what you thought I was leading to.

Why are we waiting until 1991, and why is it that this year? When we think we have something that even this Senator, a former MX opponent, could support with, why are we putting so little money into a program that does for the MX what it was originally envisioned to do when it was first created?

In other words, if rail-mobile garrison of the MX is a good proposition—and I think it is—why are we not moving more expeditiously on that to give us the better deterrent?

General WELCH. Well, you certainly do not have to talk me into being enthusiastic about that. It is simply a matter of current estimate of how long it takes to do the development work and the procurement work; 1991 was selected on the basis of how rapidly we felt we could prudently accomplish some work.

Senator EXON. It was not based on the theory that that would give us time to put all the original 50 MX's in Minuteman II and III silos, and then come back for more?

General WELCH. Oh, not at all. The 11 MXs in the silos and on alert today—and the fiftieth MX, which is all that currently has been authorized, will be in the silo in 1988. So there is no near confluence of those time frames.

Senator EXON. Is it your opinion, General, that we could speed up the research and development of the MX based on a rail-mobile system if we wanted to, or is that as fast as we can do it, by 1991?

General WELCH. Well, I would be hard pressed to say that right now; 1991 seems like the prudent time. We might find we can accelerate it a year after we get a little R&D under our belt.

Senator EXON. Gentlemen, the chairman got delayed. I will have to go to recess now, and as soon as the chairman returns we will proceed.

Thank you.

[Recess.]

Chairman NUNN. I did not expect to be interrupted by a roll call vote, but we do not control these matters. So apologies for having recessed. Now other Senators will be coming back.

Let me ask, really whoever would like to speak to this subject, whether the Chiefs have discussed it and, if so, whether there is a view of the Chiefs, and if not what your individual views are.

The administration has been addressing the question of whether the United States should begin detailed planning for a specific near-term Strategic Defense Initiative deployment architecture. And I would like to ask whether the Chiefs now believe that we have enough information from the research program to be able to make a decision on whether or not to go forward with an early deployment.

General Welch, would you address that question? If the Chiefs have discussed it, you could tell us what the Chiefs' views are, and if not what your view is.

General WELCH. Well, yes, the Chiefs have discussed it. I would prefer to let each one state his own view. But I think it is a very straightforward, simple answer. At this point in time, I do not believe that we know enough to make a decision on deployment of the SDI.

Chairman NUNN. Admiral Trost.

Admiral TROST. I fully concur with General Welch's comments.

Chairman NUNN. General Kelley.

General KELLEY. I think we all agree that deployment by phases is a good and reasonable approach to make. It gives you flexibility, it is more affordable, and you could make mid-course corrections as you see fit.

So the issue I think, as I understand it, is when would we deploy our first phase? I do not think any of us are comfortable right now that we have enough information that would warrant our even venturing a guess on what the proper year would be.

But I think we all would agree with that the first phase must be an integral part of the entire system. So, therefore, we could not deploy a first phase just to have something that is visible up there if it was not effective. There has to be a cost-effective way to do it.

So I think we all agree at this time it is premature, without additional information, to give, even to venture a guess, what the right date would be.

Chairman NUNN. Thank you very much.

General Wickham.

General WICKHAM. I agree what all the other service Chiefs have said. We have talked about SDI in JCS and spent an extensive amount of time with General Abrahamson and among ourselves. We are all in agreement that we do not know enough yet to make a deployment decision, but we do want to pursue all other avenues of technology. When the time comes to make a deployment decision downstream, obviously we want to do it in a phased way. We do not want to wait until the whole architecture is there before we make a deployment decision.

Chairman NUNN. Do you have any good guess or estimate when we will know enough to be able to make that decision? General Kelley I believe indicated we do not know now when we would even know enough to make that decision.

Does anybody believe that we will be in a position to make that decision in the very near future, like next year?

General WELCH. I believe we could be in a position to make that decision next year, in that we do know the kinds of experiments that have to be conducted. We do know the additional work that has to be done to provide the additional information that General Kelley is talking about.

It could be as early as a year from now.

Chairman NUNN. Anyone else want to address that?

[No response.]

Let me ask this question. If we go by phases, the President has a directive that was originally in Paul Nitze's speech and became a presidential directive, stating the three criteria: cost effectiveness, margin, stability, and also I believe the third one was technical feasibility.

Do you have, General Welch, any view about whether that first phase ought to meet those three criteria?

General WELCH. Well, I have a little difficulty with one of the formulations of those three, and that is that it ought to be cost effective in the sense that it must cause the opponent to expend greater funds than you expend.

Cost effective in terms of the lowest cost way to do that which you set out to do I can agree with, but I am not sure that any of us know how to make a calculation on the basis of ensuring that you force the opponent to spend more than you spend initially, because in both cases we are talking about a long-term stream of expenditures.

So when you begin to address it a phase at a time, it would be very difficult to apply that criteria a phase at a time. Of course, when you began a phase, you would want a fairly clear view of where you intend to go in subsequent phases.

Chairman NUNN. Anybody else have a view on that?

General WICKHAM. I would agree with what General Welch said.

Chairman NUNN. Admiral Trost, 2 weeks ago I questioned the Chairman of the Joint Chiefs and I asked him about maritime strategy and really what that was. And in response, Admiral Crowe stated, and I quote him:

> There is no such thing as a maritime or a Navy strategy for the United States. We have national strategy and we have a national military strategy. I do not believe the scheme known as a maritime strategy is a strategy. It is a conceptual way that we might use naval forces.

Do you agree with that, or how do you view it?

Admiral TROST. I read Admiral Crowe's comments, in response to your question, and went to my dictionary, because he confused me. To me, strategy and concept for employment of forces are essentially one and the same. Webster says "strategy" is "the use of available resources in the most efficient manner to carry out the ultimate goal," which in the military sense is victory.

So I am not quite certain what he had in mind. In fact, the maritime strategy as it now exists is a concept for the employment of U.S. forces, naval assets in this case, in support of overall U.S. military strategy.

Chairman NUNN. So you believe that is the CINC's war-fighting strategy now, or do you believe that is the budgetary strategy back at the Pentagon?

Admiral TROST. That is an overall strategy for the employment of U.S. naval power in support of national strategy. The CINC's have to translate that into theater strategy, which involves the direct employment of specific forces in specific types of campaigns.

Chairman NUNN. In last year's posture statement—Senator McCain, you have not had your turn yet. I did not see you come in here. I will call on you right now and hold my questions.

Senator MCCAIN. Thank you, Mr. Chairman.

General Wickham, I would like to follow up on some of the questions that I had for Secretary Marsh yesterday, and that is my concern about what the Army is going to do about a viable helicopter force.

My predecessor, as you know, Senator Goldwater, was concerned about the viability of the Apache. At the time, he was under the impression, as I believe Congress was, that we were going to acquire 1,206 helicopters, including 396 Apaches, for the National Guard.

Now the Army is basically zeroing out the program in anticipation of the LHX. In 1984, General Kenyon stated before the House Appropriations Committee that the Army did not want to see a repeat of the Cobra—Apache transition, when we did not have an ongoing production line for attack helicopters. He said he wanted to see that as one coming down from our current program, the

AH-64, that the LHX line is established and starting shortly thereafter.

It does not appear that that is going to happen. In fact, I have heard estimates that before the LHX could go into production we would be well into the nineties, if not the turn of the century.

I would like to know if you ever envisioned that the LHX would replace the Apache, No. 1; and if you are comfortable with basically stopping the production of the Apache helicopter at 593 helicopters?

General WICKHAM. Well, Senator, the Apache will not be replaced by the LHX. The LHX will have two versions. SCAT, or Scout Light Attack version, and we are only going to buy, hopefully, 2,000 of those; and a Utility/Assault version of which we are going to buy about 2,500. The Scout/Attack version would replace the Cobra (AH-12), Kiowa (OH-58) Scout, and Cayuse (OH-6) Scouts while the Utility/Assault version will replace our aging Huey (UH-1) and OH-58 command and control aircraft.

The Apaches are a heavy attack capability that we need. Now, it is true that the Army years ago looked at a larger fleet of Apaches than we actually settled on in the program. We looked at the tanks in a similar manner. Our tank requirement is 12,000 or so M1's, but we have only been able to program in a funding way about 7,000 to 8,000 M1 tanks.

The Army plan for the AH-64 Apache helicopter was 675, including the force required to operate and maintain them. Due to the fiscal constraints and affordability issues we were forced to balance the forces, and we had to reduce the Apache buy to 593.

Having said all of that, I would make the following point: the Apache is at the top of the list for fund restoral if we get the additional money. But I have tried to build a balanced program in what has been submitted. We are looking at some alternatives to try to keep that line open. I think there are some promising, potentially promising Foreign Military Sales (FMS) opportunities, also.

Senator MCCAIN. Thank you, General. I look forward to working with you on that question.

General Welch, recently, I think yesterday, General Skantze stated that—and I am not sure how accurate this is; it was on a television program—that the B-1 was roughly 4 years away from full employment, that there was only one—full deployment; there was only one B-1 aircraft that is on alert status, and he stated that the B-1 is not as capable as we wanted it to be.

And yet Secretary Aldridge yesterday stated to this committee that there were relatively few problems and the problems that they are encountering is basically something we encounter always and that is that the state of the art ECM equipment continues to have to be evolved and be more sophisticated as the enemy's improves. Could you comment on that, please?

General WELCH. Yes, indeed. You have the advantage of knowing what Secretary Aldridge really said, because you heard him, and you know only what the newspaper said that General Skantze said. I read General Skantze's transcript. What really occurred, of course, is that he was asked the question. "Is the B-1 able to do everything today that we had hoped it would do at this point in time?" and he said, "Frankly, no." And that was really the basis for all of those discussions.

I can tell you exactly where the B-1 is today in our view. And that is that as we proceeded through the test program we uncovered a number of things that needed to be fixed. No surprise to anyone that we would do that. All save one of those items that have been discovered have either been fixed or will be quickly fixed and are really no cause for alarm.

The one item where the Air Force has repeatedly said we are behind where we had expected to be at this point in time is in electronic countermeasures (ECM), the defensive avionics. You can make every kind of estimate that you would like about defensive avionics. When will we be where we had hoped to be at this point in time? I think 1½ to 2 years. That is an estimate, General Skantze's estimate. We have given that number several times.

When will we "catch up" with the threat? The answer is probably never, because that is the nature of ECM, as you well know. As we develop countermeasures, the Soviets will develop new countermeasures, so we are in a constant process of updating electronic countermeasures in every aircraft in the Air Force and every aircraft in the Navy. That is simply the nature of the ECM business. But the very short answer as to where we are on the B-1B is: it is on alert, it is the most capable bomber in the force today, and we will put more on alert as we complete the aircrew training.

The reason we do not have more on alert today is because we are using available aircraft to train the initial air crews, and that will be the case for another few months, and then we will begin to increase the alert force. It will be about 1½ to 2 years before we are where we would like to have been with ECM. In the meantime it is capable today of performing its mission against today's threat.

Senator **McCain**. Thank you. My time has expired, Mr. Chairman.

Chairman **Nunn**. Senator Warner, why do you not go ahead?

Senator **Warner**. Thank you, Mr. Chairman.

RESOURCES

I would like to return to General Wickham on the question of resources. Now, given the experience that you have had, and indeed you have served with great distinction, what advice would you give the Congress on the procedure now followed to make the allocation of resources and use the areas in which we could improve that procedure?

General **Wickham**. Look at the Defense Reorganization Act that we are now working with to structure the Secretariats and to structure OSD differently to improve the authority of the chairman and the role of the CINCs. Out of all of that will come an improved resource decisionmaking process and hopefully an improved allocation process. The chairman is responsible for coming up with alternative strategies that could lead to alternative force structures and alternative allocations of resources, and I hope that out of that will come a better allocation.

Senator **Warner**. So you are suggesting that the legislation adopted this past year be allowed to have an opportunity to work and have the system work within it, and hopefully you think that will be a trend of improvement?

General **Wickham**. I think that is a long-term solution. It is going to take several years for that to run its full course because it does not deal with the near term.

Senator **Warner**. Now, the Department of the Army within its own current resources and force level structure created these two new light divisions, but there remains the question of the tradeoff between strategic mobility and your combat capability and that is a tough formula. How do you arrive at that?

General **Wickham**. In forming the additional capabilities, as you know, Senator, we kept the Army's active end strength constant for the past 5 years. We have tried to harvest out of that, through economies in our headquarters through productivity enhancing technology, savings of people. As a matter of fact, in the past 4 years we have garnered within the fixed end strength Army 34 more battalions of combat capability. The light divisions are part of that. We think that that contributes to deterrence and we think that the light division concept also makes the Army a little more relevant to the times. The concept capitalizes on the limited strategic mobility that exists even in the 5 years of the program. While the Air Force and the Navy have made major efforts to improve their sea and air lift mobility, we are still deficient at the end of the 5 years.

MARITIME SUPERIORITY

Senator **Warner**. Admiral Trost, your last sentence has the phrase "maritime superiority," which has, of course, been essential to this Nation since its very formation because of our geopolitical situation. In essence we are an island nation. Tell us, is it your judgment we have that superiority today, and how do you project the future given the 600-ship Navy and the program that the Soviet Union is embarked on?

Admiral **Trost**. I would have to say that given the goals we set for ourselves with the capability represented by that nominal term, the 600-ship Navy, we are nearly at the point of having that level of maritime capability which gives us maritime superiority with a level of risk that has been deemed acceptable by the Joint Chiefs of Staff, the Nation and the Congress.

Senator **Warner**. Now, do we stop at 600? Are the Soviets going to stop or are we being locked in a race with them?

Admiral **Trost**. Well, I think it has been said in the past that we build, they build, we stop, they build. I suspect that we will find that there are probably some practical constraints economically even on the Soviet Union despite the fact that they have a propensity to meet their defense needs first and worry about the civilian economy with what is left over.

Senator **Warner**. What do you detect is the trend in their shipbuilding program at the current time for the foreseeable future?

Admiral **Trost**. What we have seen is a decline in the rate of numbers of types of ships being added to their fleet, but the quality of what is being added is markedly improved. We see that in their submarine force. We see that in their missile launching capability aboard cruisers. We see that in the nuclear cruisers that they are putting to sea. We see that in the increased emphasis in having at sea aviation capability first in their *Kiev* class ships with the V-STOL capability and now with the building of a nuclear carrier.

Senator **Warner**. Thank you, Mr. Chairman.

ADDITIONAL FORCES IN EASTERN MEDITERRANEAN

Chairman **Nunn**. Admiral, let me ask you, we have got another vote up here, and I will just ask one question and turn it over to Senator Cohen. We have recently deployed additional forces in the Eastern Mediterranean. We, of course, are in a public hearing here today. Can you tell us about the purposes of those forces and the degree of force we have there now, the general makeup?

Admiral **Trost**. Yes, sir. I can. What we have there at the current time is two carrier battle groups centered around the nuclear-powered carrier *Nimitz* and the conventional carrier *Kennedy*. In addition, we have two Mediterranean configured amphibious ready groups, that being several amphibious ships, each group of which carries 1,900 combat ready marines. The reason for the availability of the high level of forces at this point in time was that the *Kennedy* and her battle group were due to outchop this week, tomorrow in fact, to return to the United States at the end of a 6-month deployment, and were extended in the event of a further escalation in the tensions in the Eastern Mediterranean and in the event that there was a need for a military capability.

The same comment applies to the amphibious ready group. The turnover between those two groups is imminent. That group also was to return at the end of a lengthy deployment leaving a normal posture over there of one amphibious group and one aircraft carrier. I cannot comment on their use or speculate on their use in open session.

Chairman **Nunn**. Thank you.

Senator Cohen.

Senator **Cohen**. Mr. Chairman, I am going to yield my seniority and speed of arrival here to my junior colleague, Senator McCain, who has a priority question.

SUSTAINABILITY

Senator **McCain**. Thank you, Mr. Chairman. I appreciate the indulgence of my colleague, Senator Cohen. As briefly as possible, we are already seeing a debate as to whether this budget will allow the Armed Forces sustainability, necessary to carry out our commitments. I do not think there is any doubt that there have been serious reductions in these areas of spare parts, war supplies, that are going to raise grave questions. I would like to ask the opinion of the witnesses. Do they feel at this level the budget is sufficient to maintain necessary sustainability into the next decade?

General **Wickham**. Well, I have tried to build in the Army budget, through tough decisions the best balance that, in the Army wisdom, supports the CINCs. The sustainability accounts have come down, but we think it is balanced and there are acceptable risks. The Nation itself has taken enormous risks in sustainability for many years. We abandoned years ago at the end of World War

II, what is known as the D to P, D-day to production day, concept that we would aggregate enough spare parts and enough end items to sustain ourselves in war until production could take over. We do not have that luxury any more. The arsenal of democracy is cold. What we have tried to do is build a modicum of sustainment capabilities that are forward deployed, as well as stationed in the United States, to get us through a period of war and hopefully then to try to negotiate an end to it.

Senator McCAIN. General Kelley.

General KELLEY. In all of our programs we kind of take a salami slice approach to, depending upon what your priorities are. The Secretary of Defense establishes the sustainability priorities in his defense guidance. We are ramping up in accordance with those priorities, and we are on schedule. But with that said, to accommodate those priorities, then you are going to be stretching out some programs, taking a salami slice approach on other programs, and canceling some programs. In my particular case my readiness and sustainability have always been our requirement and our forte. We have put our emphasis and dollars on those two capabilities.

Senator McCAIN. Admiral.

Admiral TROST. I would have to note again that we go through the annual exercise of course, of measuring what we can do and how we should structure our programs based on the actions of Congress on the then extant budget request and also based on the top line planning that we are given for the future. In this particular case we have all had to wrestle with the fact that Congress took some rather dramatic cuts in certain of our accounts last year as well as the year before, and we at the same time in recognition of fiscal reality were given markedly reduced fiscal planning top lines.

What we have attempted to do is to restructure our programs so that priority needs are met, so that we can in fact live with the reduced funding that we anticipate to be available to operate a balanced capability as it translates directly in spare parts, as an example. We do a number of things. We look, as I mentioned earlier, in response to Senator Dixon's question, at executability of programs. Can we really buy what we say we are going to buy? Then we also look at, can we measure at a time when overall readiness has increased? There was a question referring to aircraft spare parts so I will refer to them. When overall readiness has increased it takes a lot less to sustain what you have got than it took to get to that point, though we are also taking into account the fact that with our greatly increased personnel readiness, which means more trained people able to do a better job—we are finding that we can maintain that readiness for war——

Chairman NUNN. Excuse me, Admiral. Senator McCain, when they get through with this question, I am going to have to run and vote. I hope that our military forces can do a better job of disciplining the timing of deployment of forces than we can votes in the United States Senate, but we are going to have to recess, and Senator Exon I know is coming back and maybe other Senators will come back. Go ahead and finish.

Admiral TROST. I believe the balance of that comment, Senator, was that we have to take into account both the increased ability to do a better job with fewer expenditures because of the advent of trained people and the right things in the bins to do the job. That has helped us rather markedly, but overall we are better able to sustain our forces and can do so at the reduced budget levels for the forces we now request given some budgetary stability and the support of the Congress for what is before you in 1988 and 1989.

Senator McCain. Thank you.

General Welch. Well, as budgets have been considerably less than expected over the past 3 years we have seen a decrease in each of those 3 years. We have brought down force structure, deferred or cancelled new programs, and we have indeed stretched out substantially. Having said that, though, I believe the program is in the best balance we can manage and the force that we have today is more capable every year. We do have more sustainability each year. We are making progress. It is simply not as fast as we had hoped when we began this 5-year period.

Senator McCain. Thank you very much.

[Recess.]

Chairman Nunn. The committee will come to order. It looks like we are in this period where we are going to be voting every 15 minutes, so we are going to do the best that we can to accommodate Senators, but I do not want to hold you all too much longer. Senator McCain, I think you have some more time left on yours, and then I will go directly to Senator Gore.

Senator McCain. Mr. Chairman, I think Senator Gore has not had the same opportunity I have.

Senator Gore. Please go ahead.

MAINTAINING MANNING LEVELS

Senator McCain. I would like to ask the opinion of the Chiefs on their confidence in our ability to maintain adequate manning levels of both quality—primarily quality but also quantity, manpower, given the fact that we are going to experience, decreasing manpower pools. We will attract the kind of qualified men and women into the military that we are so pleased to have today?

General Wickham. The short answer on that, Senator McCain, is that we can continue to maintain the quality, I believe, in the Army given the continuation of the incentives that Congress has provided. The GI bill is the single most important recruiting tool that we have. The quality of the soldiers in the Army today is the best that I have ever seen. Ninety-one percent of them are high school diploma graduates, and mental category 4, the lowest we take in, is around 3.8 percent in fiscal year 1986. Our Nation's manpower pool we believe is adequate to enable us to continue to do that given these incentives. If Congress cuts back on those kinds of incentives and we do not bring the pay back up again of our soldiers, then we begin to cut back on family programs, and we go through this officer reduction in 1988 and 1989. Eventually, I am going to have to let doctors and nurses out of the Army and it is going to affect family programs. Then I think we are going to unravel.

NATIONAL SERVICE

Senator McCain. As part of the answer, could I also add to the question how you feel philosophically about the concept of national service?

General Wickham. Philosophically, from a personal standpoint, I would like to believe that every soul born into this great country owes a year or two back to it. There are various ways of doing that, working in hospitals, working in the foreign service, and even in the military. We do not need a draft right now. We can maintain the size force that we have now with the volunteer arrangement, so I will turn it over to General Kelley.

Senator McCain. Thank you.

General Kelley. Senator, for about 6 years now, 2 years as the Assistant Commandant and 4 years as the Commandant, I keep hearing people telling me about demographic studies and the declining manpower pool and all of the horrible results. I just hope it does not become a self-fulfilling prophesy, because it just has not happened.

As an example, for the last 4 years every year has been a better year than the year before. Even this year, as we are in fiscal year 1987, it appears to be the best year of all with some 98.3 percent thus far of our accessions being high school graduates and less than .2 percent of the mental group 4 category. So I will say this, that if I went out and told a marine recruiter that he is going to have a problem recruiting, he would say a cheery "aye, aye, sir," and he would go out and have a problem recruiting; but, if I go out and tell him to get quality recruits, he will produce quality recruits.

So I am reluctant to get too embroiled in concern about that until such time as I see evidence that we are going to have a serious problem, but in terms of national service I agree completely with General Wickham. Philosphically, however, I have been involved in studies and the examination of national service over the years, and believe me, it is an extremely difficult and very expensive concept to develop. I would be reluctant to support national service if you made it an alternative to military service. I think you could end up with a profound impact on the quality of people that we get.

WARTIME CASUALTIES

Senator McCain. Are you concerned, General, that in the case of war in Europe, for example, that most of the casualties will be absorbed from citizens, from minorities and low income parts of our society?

General Kelley. You mean for the national service?

Senator McCain. Today, with our all volunteer force. Does it concern you that the estimates are 30 percent of the casualties would be minority Americans and the majority of our all volunteer force comes from low income America?

Genearl Kelley. Well, it would concern me if that were the case but I'm not sure that it is. I would have to go back and look at the statistics. I am not sure they support what you have just said. This could be one of the risks of the all volunteer force. If you are talking about the alternative of going back to the draft, the draft was not fair either.

Senator McCain. I was talking about national service.

General KELLEY. Oh, you are back on national service. I got confused, because you were talking about now—national service to me is a much broader thing than military service. What I am saying is, philosophically I do very much support national service.

Senator MCCAIN. Thank you, General Kelley.

Admiral TROST. I guess, Senator, I would like to begin with this comment of yours about the undue number of casualties from certain groups because I think it reflects a concern expressed by some in our society that the military no longer reflects a cross-section of society. That is one of my favorite philosophies, because my answer to that is, you bet we do not. We reflect a far more professional, dedicated, high standard group than society does as a whole today. And the people we bring in are not disadvantaged for very long once they are in our military.

I even learned over the years that had I been smart enough to know it at the time, I was an economically disadvantaged youth. It did not bother me much at the time and has not since, so I am not too concerned about the impact on various types of minorities as a result of their service in our country.

Senator MCCAIN. Could I interrupt a second, Admiral? During the Vietnam War when a small percentage over the national average of casualties were absorbed by minority Americans it was cause for great concern in this country. I am very concerned when we talk about front line combat units in NATO that are sometimes as high as 30 percent minorities who would absorb those casualties. I think it would have an enormous impact despite your experience as a youth.

Admiral TROST. I agree, but I think we should be concerned about two factors: one, are the individuals there voluntarily; and two, are they doing something which is their only alternative in our society? That should be a point of social concern. But I am not concerned about the makeup of our military today across the board. I do feel, and as I have testified earlier, that with respect to the Navy, for example, we enjoy the highest quality personnel force today that we have had since I put on a uniform. I think we can maintain that level. We have shown across the board, all of us, our services, the ability to recruit and to retain high quality personnel.

That requires two things from us in uniform. It requires good leadership. It requires providing the necessary challenge to our people. It means we have to provide those various aspects within our control to ensure that those people achieve the satisfaction that they need to stay around. From you, the Congress, it means continuing support because it is not just our recognition but the continuing support for the kind of pay allowances and benefits that let people enjoy the satisfaction of meeting a tough challenge.

So, I think we have a twofold goal or challenge to meet, which I think we can do, and I think we can do it without a draft despite the demographic projections—if we are smart enough and consistent in the application of our policies.

Senator MCCAIN. Thank you, Admiral.

General.

General WELCH. I think I would only add a couple of points. One is, quality people are not a luxury any more. We cannot run the Air Force without them. So we are very pleased with the quality we have and we must have. But the other thing is that we are very much retention oriented. What I mean by that is that it takes several years for an airman to really become a productive part of the Air Force because of the complexity of all we ask him to do. So while I am philosophically in favor of national service, short-term national service in the Air Force is not very helpful to us because they would not be there long enough to become productive.

Chairman NUNN. Senator McCain.

Senator MCCAIN. Thank you very much, Mr. Chairman.

Chairman NUNN. I want to call on Senator Gore? He has not had his round. And then I am sure Senator Wilson has questions. I am going to have to depart. I have had someone waiting for me for a luncheon meeting for some time. So gentleman, thank you all for being here, and Senator Gore will preside. I want to personally thank you, General Wickham and General Kelley, for your splendid service to the country. We hope to see you again. I know we will. But we may not. It may be the last time we see you in this forum particularly, but I am sure at some of our subcommittee levels we will be in touch, but we thank you and thank all of you for being here.

Senator Gore.

Senator GORE [presiding]. Thank you very much, Mr. Chairman. I would like to begin by echoing your words about General Wickham and General Kelley.

General Wickham, down in Fort Campbell you are still very, very fondly remembered and you left many, many friends there. In fact, all four of these witnesses just do tremendous credit to our uniformed services. Admiral Trost, your statement this morning in another forum was most impressive, and I compliment you on it. General Welch, I have enjoyed working with you on strategic issues. You have undertaken a very difficult task.

It remains to be seen how it is going to come out, but I want to tell you of my support for the outcome that you and I are both committed to. I personally believe that it is extremely important for this country to find some means for consensus on strategic policy, and if we fight among ourselves about ICBM modernization to the point that all prospects for modernization are in peril. Then we end up with a dyad. Our national strategy has long relied on a triad. Some voice have now been raised even within the Pentagon in favor of resigning ourselves to a dyad and giving up the ICBM leg.

MOVEMENT TOWARD DYAD

Am I correct in assuming—it is kind of a leading question, of course, but I put it in this form to elicit a response. Am I correct in assuming that you strongly oppose a movement toward a dyad?

General WELCH. Well, I certainly do, and on several grounds. Let me just mention a couple. One that we face every day is that a dyad would be significantly more expensive than a triad simply because the leg that would be missing in the dyad, in the discussion that you are referring to, happens to be the leg that provides the most effective peacetime alert force and provides us the lowest cost per warhead force, and that is the ICBM force. So, other than the fact that a dyad makes economic nonsense, even more important is how well served we are by the triad. Our goal is to raise great uncertainty in the minds of any potential attacker over the probability of that attack succeeding, and also ensure that we have great certainty in his mind about the inevitability of prompt, effective retaliation. Clearly, anything that reduces the scope of the problem that the adversary has to deal with and allows him to concentrate his countermeasures and his defenses against a smaller scope of systems on our part cannot serve stability, cannot serve deterrence, and does not even serve us economically. The dyad makes no sense on any grounds.

Senator **Gore**. Consensus in this country is itself a strategic asset, because in a democracy in order to move forward with a plan as controversial as any likely to be included in an ICBM modernization program, we must have some level of agreement among our citizens and among people in both political parties in the legislative and executive branch, or else progress is paralyzed. Given your strong and eloquent statement in support of maintaining the triad approach, strategic deterrence, I feel even more strongly about the necessity for developing a consensus on ICBM modernization.

I would simply restate a belief I have expressed on other occasions and that is that an effort to separate this package you have put forward on modernization, by killing the small mobile portion of the package, would lead inevitably to disruption of what consensus remains and to the termination of the modernization program for our ICBM leg. That is just a fact of political life in my view, and I think it would be a tragedy for the country.

EARLY DEPLOYMENT OF SDI

Let me move to another area. I understand that while I was not here you testified, all four of you, on the subject of early deployment of SDI. I apologize for not being present during the testimony, but in another committee there is an effort under way to put the Nation's nuclear waste in a temporary dump site in Tennessee which has aroused a less than enthusiastic response on the part of my constituents and in their behalf, I need to explore some of the intricacies of that issue, but I did get a report of that exchange as I have read your prepared statements in full.

Sometimes, when the chiefs participate in a forum of this kind the atmosphere is different than when they are asked to participate in a discussion down at the White House. Without revealing the substance of your participation in the meeting held yesterday in the White House in any way is it a fact that all four of you participated in the discussion at the White House yesterday?

General **Kelley**. Let me say we did not as individuals attend the meeting in the White House yesterday, Senator. But, we fully participated in a round of discussions that went up to, and included, the chairman, and then he went over as the principal spokesman with the Secretary of Defense. So we fully participated in the workup for that meeting yesterday.

Senator Gore. Well, I do not want to put any of you on the spot insofar as your advice to the President is concerned. I will not do that, but I will express a concern for the record that the very clear and forthright statements you made before this committee today on the current feasibility of early deployment may not have been fully reflected in the constrained atmosphere and time span of the kind of meeting which took place in the White House where the Secretary of Defense, seated next to the Chairman of the Joint Chiefs, in turn acting as your spokesman, talked about this same issue. And I would hope, through the accounts of this hearing, that if the President did not get a very clear presentation of the strong views each one of you have expressed here, that that will take place as a result of the accounts of the hearing.

I am going to stop my questions at that point because Senator Wilson has questions and I recognize him at this time.

Senator Wilson. Thank you very much, Mr. Chairman.

SDI

Gentlemen, this is a question really that is addressed to all of you. In response to Chairman Nunn's question about SDI, I gathered that you all testified that no deployment decision about SDI or any part of it can be made now and I am not quite clear really on what now means other than a very short time at present, and General Kelley apparently added that you all concur in a judgment that a phased approach to deployment is the best approach to deployment of SDI.

Could you give us your views on the need for the SDI to be structured, be phased or staged in and could you also, as you elaborate on those options, tell me whether you agree with Admiral Crowe when in an earlier hearing he stated that while—I think the phrase he chose was that SDI is not right out there in the parking lot, he did in a later response say that the decision to articulate a first generation SDI system can and should be made in the next several months.

General Welch. Let me start by saying that none of the foregoing discussion indicated a lack of support for SDI. I personally very strongly support SDI as a strong contributor to deterrence which is our basic national military strategy. The question is, when will we be ready to make a decision as to when Phase 1 would be deployed? And the answer given to that earlier is that no one is able to tell you that at this point. We know the kinds of experiments that have to be completed to have confidence in that. We know the kinds of questions that have to be answered. But as to exactly when we will have the answers to those questions, I do not think anybody can tell you that. I can tell you that we are certainly proceeding without any delays.

Senator Wilson. General, let me just interrupt you for a moment. That really is not the question. The question is not do you presently have the answers to all of the questions, because obviously there are questions that remain, and we are not talking about an ultimate or mature system at the present time. My question is, do you agree with Admiral Crowe that the decision to try to articulate a first generation system can and should be made in the next several months? This is not the deployment.

General WELCH. I understand.

Senator WILSON. The articulation of a system that preserves the option to deploy.

General WELCH. I think that my best judgment is, we could indeed know enough to make that decision within a year. I would not want to quibble about within a year or a few months.

Senator WILSON. Does that represent a consensus, gentlemen?

General WICKHAM. I would agree with what General Welch has said. The extent of the SDI experiments and what remains to be done should put us into a position of making some decisions to proceed with the first generation deployment. As General Welch said, perhaps next year you might be able to be in a position to make a deployment decision. As you know, we have conducted some rather successful experiments such as a homing overlay experiment in the Pacific where we did hit an incoming warhead with a kinetic vehicle, a nonnuclear vehicle. I would say that we are within the realm of what Admiral Crowe said but I would not hold it to a couple of months, but some time this year.

General KELLEY. I must say, for the record, I am a little more pessimistic than that.

Admiral TROST. Senator, I really cannot add to that. In my own mind I do not have enough information to know when one could deploy and precisely what one would. I do not feel I have that kind of information.

Senator WILSON. Let me ask do you agree with the President and the Secretary of State that the technically correct interpretation of the ABM treaty and the one that we should follow in designing and prosecuting an SDI program is that in accordance with what is generally referred to as the broad interpretation?

General KELLEY. Let me try to answer that. I think while we should make every effort, Senator Wilson, to comply with the ABM Treaty, I personally believe that SDI is far too important for the future of mankind to get really bogged down in a detailed legal debate on interpretations. The Soviets certainly do not seem to have any problem with the way they interpret the treaty. They just violate it.

I think we should continue to work our SDI program at a reasonable, responsible pace, a pace that is measured to provide the people of the United States with the kind of protection that is necessary. When we come to that point where it appears that we may be in violation of the ABM Treaty, we should address that issue; but I think a lot of up front rhetoric and debate which inhibits the forward movement of SDI is just manifestly wrong. We are not a provocative nation and we certainly have the right to self-preservation; and, if the preservation of the United States of America is jeopardized by whether or not we walk across a fine legal interpretation of the ABM Treaty, then my personal vote is, we walk across that fine legal line.

Senator WILSON. I think that is clear, General. Thank you. I also think it is very sound thinking, but it is not exactly the question. That is not exactly an answer to the question that I asked. Let me just ask you, General Welch, do you think that we should be designing and pursuing an SDI program under the broad interpretation?

General WELCH. You know that is a very difficult question because we have had State Department and DOD and lawyers from every corner arguing about the meaning of the treaty. And I am certainly not qualified to answer that question from a legal sense. Let me say that my feeling is that we should proceed under the broadest interpretation that we possibly can, short of withdrawing from the treaty. Now, I cannot tell you any more about what that interpretation ought to be. That is for the lawyers to say.

Senator WILSON. I am not really asking any one of the four of you to act as a lawyer. But I think I have had a response, really. What I am asking is really as military men, as those charged with exercising the military judgment and advising the President and the Secretary of Defense is it your view that we should be technologically constrained rather than imposing an artifical constraint on what we could otherwise achieve?

General WICKHAM. I think that technology is our ace in the hole and we ought to run it as far as that technology will allow us to go. We do not want to break out of the ABM Treaty. It is valuable to us, and valuable to the world, but we ought not to get, as General Kelley said, embroiled in some sort of legalistic abridgement of our technological power and our capabilities.

Senator WILSON. Would it be a fair statement then to say that your position is that you think these arguments over the interpretation are nice entertainment for lawyers but that in fact we ought to perhaps recognize that events have overtaken the treaty. That is my own view, but I do not know that I will be able to go quite that far.

Admiral TROST. I do not think it would be fair for us to characterize them as a nice exercise for anyone. I think it is a very pertinent argument that will come into play at some point in time in the ultimate national decision to deploy or not to deploy. I think most of us feel, however, as military personnel that we should not place arbitrary constraints on our ability to exploit the technologies available to us to ensure a viable SDI capability.

Senator WILSON. Thank you. I note that my time has expired. I wonder if I could ask the unanimous consent of my two colleagues to ask one more question.

Senator GORE. Surely.

STRATEGIC PROGRAMS

Senator WILSON. General Welch, last year you testified before this committee in a different capacity as Commander-in-Chief of the Strategic Air Command, the so-called Nuclear CINC, Strategic CINC, and at that time you responded to a question of mine regarding priorities.

I want in your defense that the record clearly show that you answered the question with great reluctance, and only after persistent badgering by me. Nonetheless you did testify, and your testimony to the committee at that time was that as CINCSAC you would have to prioritize strategic programs in the following order, that in terms of their priority you would rank them as B-1, MX, D-5, ATB, and finally the small ICBM.

And my question is: Do you still, however reluctantly and however supportive of the President's program you may be, see strategic programs in that same light, and do you set that same order of priority?

General **Welch**. Well, you will notice, of course, that order happens to be exactly in the order that they come down the road, and what I said was, I think we ought to take them as they come and not wait for hot biscuits. Certainly Peacekeeper remains our No. 1 priority, and it is our No. 1 priority simply because the shortfall, the most destabilizing shortfall is with us today and Peacekeeper is the most affordable, most effective way to address that priority today.

Having said that, I would not want that interpreted as nonsupport for any of those programs that you mentioned. We have gone through, over the past 3 years, a cut of over $30 billion to the Air Force's expected budget, and in the year 1988 alone we cut almost $10 billion out of our expectations. With all that, all of those programs that you named remain fully funded in the Air Force budget, and I think that is the best possible way to express our commitment to all of those strategic programs that you just named.

Having said that, I would take them in the order that they appear. I am just not fond of the hot biscuit approach, that is, wait until something better comes along. Peacekeeper is here. It is now. It works, and we need it.

Senator **Wilson**. There is also the other, I think, very relevant consideration that we are with all of these systems coming on line facing more intense competition for funding than we have ever seen, and there is a need to prioritize in a way that we have never been held to face before.

Thank you very much, Mr. Chairman. I appreciate your indulgence, and that of our distinguished witnesses.

Senator **Gore**. Glad to do it. Because of an objection on the floor we are going to have to give up this room in just 2 minutes, but the ranking minority member wants to ask one more question.

Senator **Warner**. Thank you, Mr. Chairman.

I first want to say to Generals Wickham and Kelley joining with the others in saluting you for service well done, and I hope each of you continue to provide to our Nation in some way from the depth of wisdom and reservoir you have built up over these many years. Gentlemen, the Budget Committee is looking at a delta of $62 billion between the baseline of 108 under Gramm-Rudman in CBO estimates and other estimates. So bear with us as this committee begins to struggle with that decision in terms of the allocation the Budget Committee gives us and we proceed to do our authorization.

MILITARY PERSONNEL OVERSEAS

My last comment is a plea to you which I think you are already addressing, and that is, I am gravely concerned about our military personnel overseas today and the impact on their lifestyle from the drop of the value of our dollar. Having been on your side of the table there many years, I know how quickly your attention, your morale can turn around because of these uncontrollable dollar issues.

My understanding is that the Secretary of Defense convened all services to address the problem and I hope you have no reluctance to come to the Congress, and here is one champion that will step out on any reasonable solution that we might be able to provide right away.

General WICKHAM. Mr. Chairman, for the Army alone it is a $1.2 billion problem with the deutschmark-dollar and the yen-dollar rate slide this year. We cannot solve it ourselves. We have a supplemental request over here and part of that would help in this area.

Senator WARNER. When you say year is that fiscal or calendar?

General WICKHAM. Fiscal year.

Senator WARNER. That is under the current fiscal year or under 1988?

General WICKHAM. This is in the 1987 period. We now have a supplemental over here for 1987 which will help us in dealing with the exchange problem. There is no way we can deal with the problem inside of our current budget envelopes.

Senator WARNER. It is a punishment to our people, and we have got to address it.

General WICKHAM. Well, the out of pocket expense problem is another issue.

Senator WARNER. I am talking about the lifestyle of the young enlisted persons overseas. Thank you, Mr. Chairman.

Senator GORE. One final point. In response to the very excellent statement of General Kelley about whether or not if our national interest was at stake and there was some legal nicety with the treaty we should go ahead.

That treaty, as all other treaties, contains a supreme national interest clause which allows a President to make that decision whenever he concludes that our national interest is so affected, and so that would be true regardless of how this dispute over the interpretation of agreed Statement D comes out. I certainly hope that we will stay with our earlier commitment to conduct the program within the constraints of the traditional interpretation, and again I am very impressed with the testimony that all of you have given today.

[Questions for the hearing record, with answers supplied, follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN GLENN

DOD REORGANIZATION

Senator GLENN. I realize that DOD is still in the process of implementing the Goldwater/Nichols DOD Reorganization Bill; however, since this is the first time we have had the opportunity to hear from each of the service Chiefs formally since the bill was passed last year, I would be very interested in your comments.

As you know, I have expressed reservations about some provisions of the bill, particularly combining many functions of the service Secretaries' staff with those of the military headquarters staffs, and the establishment of a joint officer specialty.

Each of the service Secretaries yesterday indicated that there were some problems in implementing Title IV Joint Officer Personnel Policy; and General Kelley, in your statement today you expressed serious reservations over the joint officer policy.

Specifically:

What is your overall assessment of the bill as finally passed?

Second, from a service Chief's standpoint, do you see any serious problems in the bill as you proceed to implement it?

ARMY

General WICKHAM. The Goldwater-Nichols Act, in most respects, represents a positive achievement by the Congress. Its impact will be to improve our joint organizations and our performance in coordinating military operations. I am particularly encouraged by the constructive results we are seeing in implementing the provisions affecting the Joint Chiefs of Staff and the combatant commands.

The key reservation to my endorsement of the Act is Title IV, the Joint Officer Personnel Policy. I support wholeheartedly the objectives behind Title IV. However, it imposes extraordinarily rigid, detailed rules on officer personnel management, rules that in several cases end up putting the very objectives of the legislation at cross purposes with one another. For example, mandating tour lengths of three or three and one-half years may improve stability in joint assignments but it will mean offering fewer officers the opportunity to gain a joint perspective and restricting professional development opportunities for those who do. Furthermore, while I support improving the quality, training and performance of the Joint Staff and other staffs involved in joint matters, Title IV, as currently structured, could force the services to pay too high a price in terms of readiness in the very line units those joint organizations are designed to employ and support.

Our initial analysis is nearing completion. DOD will soon submit to Congress a proposal for amending Title IV, as was anticipated by the Joint Conferees last September. In developing that proposal, we seek to achieve the joint personnel objectives implicit in Title IV in a better way—one that fully integrates and balances Joint and Service professional development requirements. I would ask that the Congress address Title IV changes as a matter of urgency, so that we produce an officer corps best prepared to serve the nation's defense.

NAVY

Admiral TROST. Although I have some reservations about specific provisions, my overall assessment is that Title IV is a good bill, and we are making every effort to meet all requirements of the legislation. However, by being so specific with respect to implementation, some provisions of the bill may be counterproductive to its overall intent of assigning a higher percentage of quality officers to the joint arena.

I have identified the following serious problems as we develop officer career plans to implement fully the provisions of the bill:

The requirement for each officer promoted to Flag or General officer to have had a joint duty assignment prior to selection has serious ramifications which I do not believe is either in the best interests of the nation or is in consonance with the intent of Congress. Although waivers are permitted by the bill, I believe the waivers are too restrictive with regards to our current and projected officer inventory and our operational requirements to man the fleet. Therefore, I believe an amendment is necessary to permit the Secretary of Defense to grant additional waivers of the requirement for a joint duty assignment as a prerequisite for selection for promotion to O-7. This waiver should be for individual officers as well as a group of officers having particular skills where the needs of the service so dictate. An alternative would be to obtain OSD/Congressional assurances that promotion waivers under existing law would be favorably considered through at least 1992. However, since we may not be able to provide requisite joint assignments to enough of our competitive O-7 candidates and we need to plan officer assignment policies with some degree of independence from different administration and Congressional members regarding waivers, I recommend the following change to Title IV:

"(e)(1) An officer may not be selected for promotion to the grade of brigadier general or rear admiral (lower half) unless the officer has served in a joint duty assignment. Qualified nuclear propulsion officers and carrier aviators are eligible for promotion to rear admiral (lower half) without meeting the joint duty prerequisite, but may not be selected for promotion to the grade of rear admiral (upper half) unless the officer has served in a joint duty assignment."

Joint Duty Assignments: To meet the Flag and General officer promotion requirements, definition and identification of sufficient numbers of challenging and demanding joint billets is a major problem. To resolve this problem, the JCS will seek relief for officers filling joint related billets in service headquarters staffs. However, additional relief is required for Navy and Marine Corps officers serving together in joint combat organizations such as amphibious and fleet staffs and as combat cargo officers. This will give them parity with Army and Air Force counterparts who serve in similar fashion in each others' staffs. I therefore recommend the following changes to Title IV:

Section 668, subsection (b)(2):

"(2) The definition of the term 'joint duty assignment' may include assignments within an armed force other than an officer's own armed force, with the exception of education and training assignments."

Although I have other concerns about the bill (e.g., long tour lengths of 3.5 years for O-6 and below and 3 years for Flag Officers, requirements to assign 50 percent of PME graduates directly to joint billets, etc.), I have addressed these as a member of the Joint Chiefs of Staff to the Chairman, Joint Chiefs of Staff.

At our next hearing on Title IV, I will provide additional comments on our progress and problems encountered in implementing the bill.

MARINE CORPS

General **Kelley**. During the 2 years of reform debate prior to enactment of the bill I opposed numerous reorganization provisions that were recommended. As you know, I am on record in that regard. The Goldwater-Nichols DOD Reorganization Act, however, is now the law of the land and I have joined with the other Joint Chiefs of Staff in trying to make the law work.

Since we have not finalized the implementation plans, I don't have a definitive list of problems for you. I can say that features of the Act dealing with the management of our officers are predictably producing problems. As you might imagine, I am referring to the mandated tour lengths, the requirements associated with the "joint specialty," and the restrictive prerequisites for promotion to general officer. I am particularly concerned that the "joint specialty" could have an adverse impact on the morale and effectiveness of our officer corps. Preliminary analysis reveals the 3-year minimum tour length for general/flag officers, the 3½-year average for all others, and the requirement to maintain averages if waivers are granted may not be in the best interest in providing quality officers to joint duty. A review of alternative notional career profiles considered for "joint specialty" officers indicates that these officers would have limited operational command opportunities in the grades of O5–O6. Just as important as the lost command opportunities are the lost operational staff opportunities which also limit the expertise they would bring to their joint duty assignments. I trust that Congress will be receptive to changes that the Joint Chiefs of Staff will recommend in order to comply with the intent of Congress.

AIR FORCE

General **Welch**. The Air Force is moving forward in the implementation of the law. The Air Staff is currently involved in a detailed analysis of the law with the goal of ensuring successful implementation and identification of those areas which may require additional dialogue with Congress. It appears the partial staff integration will work and, hopefully, economies will be realized. However, the Air Staff analysis has identified certain aspects of Title IV which may be counter-productive from the standpoint of developing an officer corps bred to be combat leaders.

When the individual points of Title IV are viewed in isolation, all appear to have merit. But once the cumulative view is taken, concerns surface. Specifically, the required tour length inherent in the law may restrict availability of the best officers for selected positions and, ultimately, some impact on the development of the total officer corps may occur. Also, it appears that the law failed to consider existing DOD tour length policies in overseas areas. The Air Staff does not believe the intent of the law was to change existing policy in this regard. Exclusion of all Service billets from consideration as joint duty assignments overlooks the contributions of Service members to the joint process. For example, Air Liaison officers (ALOs) are completely involved on a daily basis in the integrated employment of joint combat forces. Thus, it would appear that some in-Service billets fully meet the spirit and intent of the law.

Analysis to date indicates the requirement to complete joint PME prior to a joint duty assignment as a prerequisite for the joint specialty may be overly restrictive. Joint duty occurring before joint PME still provides quality joint experience, which is the goal of the law. Additionally, the provision requiring CINCs and the Vice Chairman to come from a pool of officers holding the joint specialty may prove to be unnecessarily restrictive. The requirement to have a joint duty assignment prior to selection to General/Flag officer should be sufficient. Hopefully, the law was intended to groom combat leaders with joint experience, not create combat leaders from a cadre of officers who have excelled in the staff environment.

Air Staff analysis is continuing. When appropriate, specific recommended changes will be forwarded that will enable the Air Force to meet the spirit and intent of the law without degrading our ability to produce the senior combat leaders of the future.

CONVENTIONAL FORCE MODERNIZATION

Senator GLENN. Last year the Chairman of the Joint Chiefs of Staff, Admiral Crowe, testified that we were "midstream" in the Conventional Force Modernization process." He further stated that "to falter now would not only stretch out the entire process, but would erode many of the gains already made and, frankly, prove more expensive in the end."

A review of the Services fiscal year 1988-89 budget submission indicates that we may be faltering with a clear slow down in our modernization program and a stretch out of many major procurement programs. For example, with several tank battalions remaining to be outfitted with the M-1 tank, the multi-year buy of M-1 tanks has been reduced from 800 tanks in fiscal year 1987 to a total of 600 in both fiscal year 1988 and fiscal year 1989. Conversely, all of the services appear to be pressing forward at full speed with the next generation of conventional weapons such as the ATF, ATA, LHX, and SSN-21. This in spite of the fact that many of the existing systems that these new programs would replace are still under production, and in addition, will undergo major upgrade program. It appears to me that we are proceding too rapidly to the next generation of several major weapons systems at the expense of our current modernization program. I am not questioning the requirement for these new systems at this point, but given the fiscal realities, I am questioning the timing of them. Comment?

ARMY

General WICKHAM. Modernization is a dynamic process. While fielding current systems we must invest in R&D to develop systems that will meet the qualitative and quantitative advances of the threat. Our earlier investments in R&D are now maturing for procurement in the mid 1990s. It is important that we capitalize on the technological advances at hand if we are to maintain leverage over the threat. That is why we are investing heavily now in R&D for programs such as the future Armored Family of Vehicles as replacement for BFVS and M-1 tanks and in the LHX as a helicopter replacement for Hueys, Cobras, OH-6s and OH-58s.

NAVY

Admiral TROST. The Navy's fiscal year 1988/1989 budget has its foundation in national strategy and the maritime objectives in support thereof assigned to the Navy and Marine Corps. These objectives determine force structure and modernization planning requirements. The most important inputs in the preparation of the budget are those of the operational and theater commanders (CINCs) in their net assessments and recommendations for funding priorities. The lessons learned from real-world operations and conflicts such as the Achille Lauro incident and the Libyan strike operations are also considered and applied to budget planning. From the start of the fiscal year 1988-1989 programming process in September 1985, the application of common sense in placing priority on the most urgent CINC requirements has been requisite. This process exercises substantive impact on the balance between force structure and modernization expenditures in the fiscal year 1988-1989 budget and therefore has direct bearing on the answer to your query regarding the timing of expenditures on new systems.

The Navy's fiscal year 88/89 budget represents a balanced program which was structured over the last year while the Navy topline for these 2 years was reduced 10% from what had been programmed at the time of the fiscal year 87 President's Budget submission. The relationship between modernization and force structure expenditures has been purposefully conceived and reflects the exigencies or real-world crisis requirements and the current threat. The specific timing of the systems funded in the modernization and force structure expenditures also represents a carefully scrutinized balance between current force requirements and future capabilities necessary to meet the projected threat into the next century. Modernization funding remains relatively steady for fiscal 1988 and fiscal year 1989 (17.6 and 16.5 percent of the budget, respectively), sufficient to achieve a balanced program of systems and hardware improvements. Force structure funding has declined as a percentage of total obligational authority over recent fiscal years; the 18.9 and 19.8 percent of budget figures for fiscal year 1988 and fiscal year 1989 reflect a requirement to sustain forces levels with a more modest, albeit slightly increasing, investment.

The Navy's Force Structure expenditures are driven by the need for the proper numbers and mix of units with the necessary design capabilities to effectively meet the threat while carrying out theater requirements, campaign plans and battle force employments. Force structure expenditures fund the construction of new ships, including those required to replace obsolete platforms, ship conversions and reactivations, and aircraft procurement. The 600th ship enters the fleet in 1989 and the current budget request represents the minimum funding necessary to update and sustain this capable force into the 1990s and beyond. An example of our force structure requirement is the need to replace two of our older carriers, which because of age and size can no longer be modernized and repaired to effectively match the Soviet threat of the twenty-first century. Another example of our force structure requirement is the need to build a new class of submarine. The capabilities of the follow-on to the SSN-688, the SSN-21 class, are indispensible and crucial to our command of the seas well into the next century.

Modernization expenditures support research, development, testing and evaluation, fleet modernization or ship alternations, and aircraft and weapons modifications. Investment in modernization of ships and aircraft enables us to maintain technological superiority over potential adversaries and threats. While we are outnumbered by the Soviets at sea, we have consistently maintained a qualitative edge by leveraging advantages in technologies innovation, quality design, and construction. This advantage is increasingly difficult to retain as the Soviets indicate a commitment to qualitative as well as quantitative improvements. The qualitative factors on which our Navy depends for superiority in combat can only be preserved through systematic and ongoing fleet modernization. The fiscal year 1988–1989 modernization budget request continues emphasis on technological innovation, yet provides funding stability for advanced projects supported under last year's budget. We are no longer spreading too few dollars over too many projects in which the payoffs in capability and efficiency are marginal. Furthermore, we carefully review each project to ensure we are getting maximum results for every dollar spent.

Sustaining the material gains in capabilities, readiness and performance which we have realized in recent years is the Navy's highest priority. The extraordinary costs of resuscitating a declining Navy only six years ago should give us sufficient pause to consider the consequences of allowing such a decline ever to occur again. The investment in modernization of ships and aircraft and the development of future platforms is a reflection of the need to maintain technological superiority over potential adversaries and threats. The advantage is increasingly difficult to retain as the Soviets show a commitment to qualitative as well as quantitative improvements.

MARINE CORPS

General KELLEY. The Marine Corps' modernization program is directed toward the systematic replacement of outmoded equipment currently in our inventories. There has been no slippage in the Marine Corps' modernization programs for the "next generation" systems.

AIR FORCE

General WELCH. The timing of weapon system modernization is a function of complex variables including the threat assessment, adequacy of existing weapon systems, technological advances which increase weapon effectiveness, and the time necessary to develop, test and deploy replacement systems. In establishing the pace of a modernization, a continuous assessment is made to ensure that a balanced approach is maintained among existing and planned force structure, current production programs and development of the next generation of weapon systems. Concurrence of production programs and research and development for the next generation is essential to prevent a gap in force effectiveness when compared to the threat. Such a gap could occur if the extreme alternative were chosen to buy-out a production program before initiating research and development of a follow-on system.

The ATF program is a good example of the case in question. The ATF is planned to enter the Active force structure in the mid-90s. At the time of its deployment, the ATF will be replacing twenty year old F-15 fighters. Delaying the ATF until completion of ongoing fighter production would delay introduction of our next generation fighter by more than a decade, extend the operational use of deployed fighters beyond their programmed life and severely reduce the effectiveness of tactical forces in the mid 90s and into the next century.

OPERATING AND SUPPORT COSTS

Senator GLENN. There has been considerable concern raised over the adequacy of funding for operating and support costs in the fiscal year 1988/fiscal year 1989 budget. Some have said that with reduced defense budgets we are possibly facing a return to the unsatisfactory readiness conditions experienced in the late 1970s.

Mr. Rudolph Penner, Director of the Congressional Budget Office testified earlier this week, that the 3% real growth in operating and support costs proposed by the Administration through 1992 may be adequate. He further added that operating and support costs are highly diverse and difficult to project.

I would appreciate your individual assessment as to the adequacy of operating and support costs requested for your service for the next 2 years.

ARMY

General WICKHAM. The operating and support costs (O&S) referred to by the Congressional Budget Office include the accounts of Personnel, Operation and Maintenance, and Family Housing. For fiscal year 1987, $52.7B was appropriated for O&S. The President's Budget submission for O&S for fiscal year 1988 is $55.8B and for fiscal year 1989 is $58B. While this rate of growth is not as large as the Army desires, given the realities of a balanced program, these amounts, if approved by Congress, will result in adequate O&S for the next 2 years. Within the overall O&S program, Army resources to the maximum extent possible those items which have the greatest impact on readiness.

NAVY

Admiral TROST. The operating and support resources requested in the Navy's fiscal year 1988/89 budget are adequate to maintain the high levels of readiness currently enjoyed in the fleet. Mr. Penner is also correct in stating that operating and support costs are highly diverse and difficult to project.

MARINE CORPS

General KELLEY. The adequacy of funding for operating and support costs over the next two years is acceptable.

The Marine Corps is at a level of military capability that it has seldom achieved before. Our current readiness, sustainability, and overall ability to support our forces are, however, perishable commodities. With your help, we must provide the level of funding in the future to sustain the gains achieved over the past few years. Marines must continue to be recruited and given realistic training. Weapons and support equipment must be exercised and maintained. And we have a continuing need to respond to the changing threat or take advantage of new technology needed to win in combat against an improving enemy in a changing world.

Our request for operating and maintenance funds in fiscal years 1988 and 1989 satisfies our need to recruit, retain, train, and maintain our Corps. There is a 3% real growth from fiscal years 1987 to 1988. However, with the need to continue investments to modernize our equipment in fiscal year 1989, the operation and maintenance appropriation actually suffers a negative real growth from fiscal year 1988 to fiscal 1989. This will impede our efforts to maintain readiness and sustainability if the trend continues.

AIR FORCE

General WELCH. The budget, as submitted, contains adequate operating and support funding for both years. The operating and support (O&S) budget should not be viewed as a percentage of the total Air Force budget or as a function of the various procurement appropriations. Rather, the O&S budget is built each year based on the programmed force structure and operating activity levels; i.e., number of aircraft, missiles, space launches, flying hours, work years, training deployments and so on. By repricing our O&S requirements across the Five Year Defense Plan each year, we are able to estimate an O&S budget that is balanced, affordable and executable. This means we price the O&S budget to support the forces needed to meet our mission objectives, and also fund an adequate level of effort to support the needs of our people and our facilities and equipment. This does not mean that we do not have unfunded O&S requirements. Because of overall budget constraints, we will continue to have backlogs in depot maintenance, real property repair and maintenance, as well as shortfalls between requirements and funding in other areas. We can live with increasing backlogs for a time. However, for obvious reasons a long-term buildup of backlogs and unfunded requirements would eventually have an adverse effect on readiness. In summary, the O&S funding requested in this budget will adequately maintain our current state of readiness.

MANPOWER-RECRUITING

Senator **Glenn**. There has been considerable concern expressed both in the Congress and by the Pentagon over what is forecasted to be a decline of approximately 10 percent in the number of men and women reaching prime recruiting age during the next ten years. To address this potential problem, some in the Congress are even discussing the establishment of a National Service program.

Conversely, I was recently apprised of a briefing by senior Army officials in which the Army stated that, as of now, they did not see an appreciable drop in recruiting for the foreseeable future. In fact, they stated that for the first time the Army had broken "the economic barrier;" that although the civilian economy was good, recruitment of qualified people continued at a strong pace.

The Army attributed this success to such incentive programs as the Army College Fund. How serious do each of you see the services recruiting problem over the next 10 years? Should establishment of some form of National Service be considered?

ARMY

General **Wickham**. The level of recruiting difficulty which the Army experiences over the next 10 years will be determined by the adequacy of resources allocated to the task.

It is true that there are some demographic and economic trends which mitigate against success in the recruiting mission. A decline of approximately 10 percent in the annual number of young men and women reaching prime recruiting age between now and the mid-1990's will, according to the Census Bureau estimates, become a reality; the Bureau of Labor Statistics estimates that even with the military pay raises assumed in the fiscal year 1988-92 FYDP military pay will lag behind civilian pay by about 9.5 percent through fiscal year 1992; and the Congressional Budget Office, in its January 1987 Economic and Budget Outlook, estimates that the unemployment rate will slowly decline from 7 percent in 1986 to 6 percent in 1991 and then remain at that level through 1993.

Over the past couple years, however, there have been several positive indicators that we can, given the resources currently budgeted and programmed, achieve success in our recruiting programs despite declining youth pools, pay comparability, and unemployment rates. First we were able to clearly demonstrate that the rate at which recruiters wrote high quality (high school diploma graduates with high AFQT scores) enlistment contracts has a high positive correlation to the Army's National Advertising Weight. Then, in late 1984, we were finally able to break the historical link between the unemployment rate and the rate at which we wrote high quality male enlistment contracts. For the first time our success in the high quality youth market was no longer tied to the employment rate. We attribute this success, and the success of our recruiting programs in both fiscal year 1985 and fiscal year 1986, to the support which Congress provided to our advertising, educational incentives, enlistment bonus, and recruiter support programs.

There is no longer any doubt that increased advertising resources pay off in increased high quality recruits. The GI bill and Army College Fund have allowed us to more fully penetrate the high quality college oriented market and the Enlistment Bonus program, (which is available only to high quality recruits who enlist for four years in certain critical skills), assists us in the work oriented market by achieving longer average terms of service per enlistment and distributing quality recruits to critical skills, particularly the combat arms. Adequate resourcing of these programs, combined with the fact that recruiting requirements through the early 1990's are projected to remain fairly stable in the 135K to 140K range, should permit us to avoid serious recruiting problems and to maintain the high quality of recruits and the associated high personnel readiness levels which we now enjoy without the necessity of instituting some form of National Service Program.

NAVY

Admiral **Trost**. Demographic prognoses notwithstanding, the quality and quantity is available in the nation's manpower pool to support the Navy's long range needs, provided we are allowed to compete in the marketplace. This includes not only gaining but also retaining the right people. Doing this requires adequate recruiting resources and a fair, competitive and stable compensation package which includes the necessary special pays and bonuses.

I cannnot overemphasize the importance of providing adequate resources to support our recruiting force. Our FY-88 budget request for recruiting manpower and advertising programs will greatly assist recruiting not only in continuing to meet our near-term objectives, but will ensure long-term success.

We learned the hard way that reducing recruiting resources during successful times and then trying to recover when recruiting becomes tougher is much more expensive in terms of resources and readiness than to maintain an adequate, consistent recruiting effort. Navy anticipates reaching a "steady state" end strength in 1991. Accession requirements would then be expected to decline. We need congressional support to maintain adequate recruiting resources through this period of growth and to sustain the force thereafter.

As a military service, the Navy certainly endorses the concept that being an American citizen involves both duties and privileges. However, a program of universal national service as a substitute for the all-volunteer force is not seen as the best alternative. Without a definitive national service proposal we can only estimate its merit from a military manpower perspective. My concern is that we would experience lowered overall recruit quality, with those recruits serving shorter terms. Our manpower requirements are best met with high quality accessions voluntarily serving for an average of four years or longer, with strong potential for career retention. Manpower issues notwithstanding, the cost of a national service program could be very high—some estimates are nearly $50 billion a year for a mandatory program.

MARINE CORPS

General **Kelley**. For about 6 years now, two years as the Assistant Commandant and four years as the Commandant, I keep hearing people telling me about demographic studies and the declining manpower pool and all of the horrible results. I just hope it does not become a self-fulfilling prophesy, because it just has not happened.

As an example, for the last four years every year has been a better year than the year before. Even this year, fiscal year 1987, it appears to be the best year of all with some 98.3 percent thus far of our accessions being high school graduates with less than two tenths of a percent being in the mental group IV category. So I will say this, that if I went out and told a Marine recruiter that he is going to have a problem recruiting, he would say a cheery "aye, aye, sir," and he would go out and have a problem recruiting; but, if I go out and tell him to get quality recruits, he will produce quality recruits.

So I am reluctant to get too embroiled in concerns about recruiting problems until such time as I see evidence that we are going to have a serious problem.

Philosophically I support National Service. I think every citizen owes a personal commitment of time and energy to this country. I've been involved in several studies over the years that examined National Service, and practically speaking, it is an extremely complex and very expensive concept to develop and implement. I would be reluctant to support National Service as an alternative to military service. I think you could end up with a profound impact on the quality of the people that we get.

AIR FORCE

General **Welch**. The Air Force is currently experiencing very successful recruiting of the highest quality accessions in recent history. This success is attributed to a finely tuned mix of adequate recruiting resources, competitive incentives for enlistment such as the New GI Bill, and a dedicated all-volunteer recruiting force. This mix is further enhanced by high retention rates of career members. We do not anticipate significant recruiting problems in the next decade assuming adequate compensation is maintained to attract and retain our members, and recruiting resources are sustained at adequate levels.

Short-term National Service is not very helpful to the Air Force because individuals provided through this source would not be with us long enough to become productive.

THE NEW GI BILL

Senator **Glenn**. Do you have any hard evidence that the new GI bill has turned out to be a strong recruiting incentive?

ARMY

General **Wickham**. Education benefits are the most important personnel policy we have to recruit a quality Army. The new GI bill in conjunction with the Army College Fund is the cornerstone of the Army recruiting effort.

The Army uses education benefits to expand its pool of potential applicants by attracting high-quality, college-oriented youth. Each year we survey new recruits to find out why they join the Army. The results of the fiscal year 1986 survey supports the Army position that the majority of upper mental category (AFQT I–IIIA), high school graduates are motivated toward continuing their education. Of all high quality recruits, 43 percent responded that they would not have joined the Army without the GI bill and Army College Fund. Further, thirty-seven percent of male, upper mental category, high school graduates rated education benefits as the single most important reason for enlisting in the Army.

Our analysis also shows that the new GI bill is a strong incentive in its own right. We compared male, high-quality enlistments during the first 12 months of the new GI bill with enlistments during the last 12 months of the former program (VEAP). When controlling for the effects of other variables such as mission and numbers of recruiters, we found the isolated effect of the GI bill itself was a ten percent increase in enlistment contracts. This ten percent increase, which equates to 6,000 more high quality males, is the gain from changing from VEAP to the new GI bill. If there were no education benefit at all, our quality enlistments would plummet far below acceptable levels.

The new GI bill has been very successful as an incentive in our reserve components recruiting program. Through January 1987, over 29,000 Army reserve components soldiers have applied for education benefits. Annually, Reservists and Guardmen are using the New GI bill at a rate of over three times that of the previous reserve components program.

Further, recruiting results show that the new GI bill is a powerful recruiting tool for improving quality and lengthening terms of enlistment. For example, USAR recruits who scored in the top half of the Armed Forces Qualification Test increased 24 percent and those who enlisted for 6 years increased 28 percent when comparing the first year of the new GI bill to the year prior. Comparing the same periods, ARNG and USAR recruits who were high school graduates increased 13 and 9 percent respectively.

Education benefits are part of an enlistment incentive package, all facets of which are necessary to recruit a quality Army. However, education benefits are the most critical recruiting incentive that the Army has, and we don't want to see them changed.

NAVY

Admiral **Trost**. For active Navy recruiting, the new GI bill continues to be an integral part of the overall benefits package offered to applicants. The GI bill is still not the primary motive for an applicant to join the Navy, nor should it be, but it does help attract individuals looking for a worthwhile educational package. When we combine it with the Navy Sea/College Program (NSCP), we are able to attract high quality prospects. We can then approach those not qualifying for the NSCP about other Navy programs. While we cannot attribute last year's recruiting success directly to the new GI bill, it clearly had a positive effect as seen in the accession of more than 88,000 non-prior service recruits and a participation rate of approximately 50 percent.

There has been a definite increase in the quality of our non-prior service recruits into the Selected Reserve, and our recruiting command attributes a large portion of this to the GI bill. We have seen the number of high school graduates increase from 71 percent in fiscal year 1984 to 83.5 percent in fiscal year 1986. In fiscal year 1987, based on members in Delayed Entry Training (DET), we expect the number of high school graduates to increase to 91.9 percent. We are also realizing a smaller percentage of lower mental group accessions. For example, in fiscal year 1984 we accessed 12 percent Mental Group IV, and in fiscal year 1986 that number decreased to 5 percent with none accessed to date in fiscal year 1987.

MARINE CORPS

General **Kelley**. No sir, we don't. The New GI Bill has not been in effect long enough for us to do a rigorous analysis of the program's effectiveness as a recruiting and retention tool. That being said, I've seen a number of factors that indicate the program is working well.

Since the New GI Bill has been established, we've seen our quality indicators go up. High school graduate percentage rose from 95.4 percent in Fiscal Year 84, the last year before the New GI Bill, to 97.5 percent in Fiscal Year 86, the first full year of the program. Upper mental group percentages also increased during the same period from 60.7 percent to 65.2 percent. Since the Reserve GI Bill has been in effect, we've seen attrition go down and six-year obligations go up.

In terms of participation rates, under VEAP we averaged 33.7 percent participation while our participation rate is 62.6 percent under the New GI Bill—and that is an average rate, our participation rate for January was 73.2 percent.

My recruiters tell me that young men and women join the Corps primarily to be Marines, but they are interested in the GI Bill. Additionally, their moms and dads, and their teachers—the people who most influence the decision—are very interested that the Marine Corps offers the GI Bill.

I'm confident that these trends I've mentioned will continue. I think this program is good for the Marine, good for the Corps, and in the long term, good for the country.

AIR FORCE

General WELCH. Yes. We conduct surveys of over 4,000 basic trainees annually. Since the inception of the New GI Bill (NGIB), 63 percent of our new recruits have listed "continue their education" as a primary reason for their enlistment. The most potent educational opportunity indicated in this area is the NGIB. This is underscored by the seven-fold increase we are experiencing with the NGIB as compared to our participation under the Veterans Educational Assistance Program (VEAP). More importantly, the majority of our NGIB participants are in the upper mental categories I & II—the kind of people we must have to accomplish our mission.

With respect to the Selected Reserve portion of the NGIB, we are experiencing significant impacts. This is exemplified by a comparison of an 18-month period of pre- and post-NGIB statistics for the Reserve and Guard which are as follows: +330 percent extensions, +110 percent reenlistments, +123 percent enlistments. Additionally, our surveys and career advisors indicate that the NGIB is now the overwhelming single reason for enlistment in the Air Force Reserves and National Guard.

V-22 OSPREY

Senator GLENN. Admiral Trost, last year both the Marine Corps and Navy testified that development of the V-22 Osprey tilt-rotor aircraft was your highest priority aviation program. I am pleased to note that during the past year the V-22 program has proceeded as planned.

In my opinion, one of the most important aspects of this program is its joint service application. I'm sure the committee would appreciate an update on the plans for use of the V-22 by each of the services including the status of joint funding and joint program management initiatives.

Admiral Trost, would you like to respond?

NAVY

Admiral TROST. Thank you, Senator Glenn. The V-22 Osprey program represents today's technology in a platform that all our services can use tomorrow. As the executive service responsible for developing the baseline aircraft we are greatly encouraged by the positive results to date of the development phase. Tilt-rotor VSTOL aviation will revolutionize the way aviation supports the fleet.

The Navy is acquiring 50 V-22 Osprey aircraft for combat search and rescue. The V-22 will be replacing our antiquated H-3 and will provide a very capable day/night all-weather rescue aircraft being able to survive in present day combat conditions. We have begun to realize additional benefits of our unique aircraft. It will complement our special warfare requirement, and enhance our carrier/shipboard delivery capability by delivering high priority cargo at great distances to nonaviation capable ships, ensuring a high state of fleet readiness.

As indicated by General Kelley's statement, we have completed our Milestone II review and the Secretary of Defense has granted approval to complete full scale development, with the first flight scheduled for June 1988, only 15 months from today. We have been encouraged by the congressional support which provided the required funding necessary to complete Milestone II.

This aircraft's full capabilities have yet to be realized. The unique four service applications of the V-22 Osprey, such as our concept formulation of an ASW variant, will only open the door to promising new advancements in naval aviation's next 75 years of success.

MARINE CORPS

General **Kelley**. Thank you, Senator Glenn. As you have noted, the V-22 Osprey continues as my highest priority aviation program. I see Osprey as absolutely essential to retain a viable Marine vertical troop assault capability into the next century.

Marine plans for the Osprey remain consistent. We will convert all of our active and reserve CH-46E squadrons, plus one CH-53A/D squadron, to meet our troop assault needs. The CH-46 has proven to be a fine warrior for us. It, however, continues to age, and my assault lift requirements have grown to counter an increasingly mechanized threat. We have an active program to improve the CH-46E safety, reliability, and maintainability throughout the conversion, but it simply cannot be further uprated to match our assault lift need.

I remain convinced that Osprey is the only common solution to meet the joint operational requirements. During the past year the Osprey program has undergone two very thorough Department of Defense reviews and has been cleared on to Milestone III. I am encouraged that the program remains on track with the sound technical and fiscal footing necessary to meet our needs and protect our investment.

AIR FORCE

General **Welch**. The CV-22A is the linchpin of the Air Force Special Operations Forces (SOF) airlift revitalization program. Its medium-speed cruise and vertical takeoff and landing capabilities will provide SOF with an advanced technology vehicle to conduct long-range exfiltration missions which cannot be accomplished by the current assets.

In 1985 we consolidated the engine and airframe development funds with Navy as the executive agent. Air Force RDT&E funding is for SOF unique systems procurement, integration and testing. We are planning to receive the first 6 of 55 CV-22s in FY 1994.

Regarding joint program management initiatives, Air Force personnel have been in the joint program office since 1984. We are also contributing a derivative of the LANTIRN navigation radar to be incorporated into the Navy's HV-22 and our CV-22.

ARMY END STRENGTH

Senator **Glenn**. General Wickham, former Army Chief of Staff General Meyer said in a recent interview that he did not believe that the Army could bring the two new light divisions up to full strength without additional military and civilian personnel.

Do you agree with this statement? Does the Army have any plans in the current Five Year Defense Plan to increase your military end strength to man the two new light divisions?

General **Wickham**. No, I don't agree with his statement. General Meyer probably is unaware of the many initiatives underway to provide military strength for these activations. These initiatives include: headquarters reductions throughout the Army; application of productivity enhancing technology; combat field fielding system to reduce numbers of cooks in units; logistic unit productivity system to improve logistics capabilities while reducing manpower; increased host nation support to replace combat service support units.

The current Five Year Defense Plan contains no overall increases in military or civilian strength as a result of the creation of these divisions.

GUARD AND RESERVE FORCES

Senator **Glenn**. General Wickham, General Meyer recently stated that he thought "the noodle has been pushed up the hill as far as it can be in turning over new missions and functions to the Guard and Reserve."

Do you think the Guard and Reserve can handle more missions in light of the quick response time that's needed, and in light of the fact that they are restricted to 48 paid drills and 15 days active-duty training annually?

General **Wickham**. The Army continues to support the "Total Force" policy as the most prudent alternative for meeting the nation's requirements for land power in a resource-constrained environment. The current distribution of mission responsibilities between the Army's active and reserve components is the product of a series of decisions made deliberately over the past decade in the context of that policy.

Our efforts to shift mission responsibilities to the reserve component have been carefully balanced with programs to improve RC unit mission capability. These programs include initiatives to: provide more and better equipment ($19.9 billion) in fiscal year 1986; $2.1 billion in fiscal year 1987); improve mission awareness and familiarity with theaters of operation (CAPSTONE/ODT); and increase the effectiveness of peacetime training (FTS). The positive effects of these unit-oriented programs have been further complemented by developments which will potentially afford units more time subsequent to activation to prepare for deployment overseas. Examples of the latter include our Joint Deployment System which has substantially improved our decision-making capability and recent legislation which increases the President's authority to call up members of the Selected Reserve.

The full impact of our programs has yet to be realized; therefore, we do not envision any major additions to RC mission requirements during the program years. We will continue to evaluate the division of responsibilities as results become known and act appropriately to maintain a proper balance between requirements and capabilities.

RC READINESS

Senator **Glenn**. General Wickham, how would you characterize the readiness of our Guard and Reserve forces to go to war today, particularly those Guard and Reserve combat support and combat service support units which would be deployed in the first 30 days of a national emergency?

What percentage of these units are fully or substantially capable of performing their wartime missions today?

General **Wickham**. The readiness of the Guard and the Reserve is the best it has been in our nation's history. [Deleted.] RC units have more and better soldiers, as well as more Guard and Reserve soldiers on active duty. The fielding of new, modernized equipment and the redistribution of Active Component (AC) equipment to RC units has accelerated. [Deleted.] Additional readiness improvement initiatives include the Army National Guard Equipment Readiness Analysis Program, which redistributes Guard equipment to improve Equipment On Hand (EOH) readiness; the FORSCOM Crossleveling Program, which redistributes Reserve equipment to improve EOH readiness; and the Special Operations Forces (SOF) Readiness Action Group, established to intensively manage SOF personnel and equipment readiness.

[Deleted.] In general, CS/CSS units have a greater number and more types of technical equipment which are mission essential, resulting in more difficulty in fixing EOH. Efforts to improve EOH for CS/CSS units include the Reserve Component Dedicated Procurement Program, which provides additional equipment for the RC, and especially for the Reserve, provides equipment for CS/CSS units. At the same time, two mechanisms are now in place to insure that the remainder of the CS/CSS units are brought to a combat ready status early after mobilization. Our mobilization equipment and personnel redistribution systems are on line and designed to redistribute resources required to improve readiness of units not combat ready at mobilization.

The Army has made substantial progress in RC readiness in recent years, but we also recognize that much work remains. Overcoming shortages of equipment and personnel, caused by years of underfunding, cannot be accomplished in the span of just a few years. Resources limitations require that we prioritize our efforts on a "first to fight" basis for both the AC and RC units. Steady progress is being made; however, continued support by Congress is essential to maintain positive trends in RC readiness and capability. As part of the long term solution, we are conducting an intensive CS/CSS management review to determine additional near-term solutions. In addition, we have provided $95.7 million in fiscal year 1988 and $75.5 million in fiscal year 1989 for procurement of mission essential equipment necessary to improve readiness of CS/CSS units.

Questions Submitted by Senator Dan Quayle

SOVIET STRATEGY—NATO

Senator **Quayle**. General Wickham, if the Soviets were to adopt a competitive strategy against NATO in the central front—i.e., if they were to exploit NATO weaknesses—wouldn't they want to stress NATO air defense further with more helicopters, TBMs and frontal aviation? What are *we* doing to shore up this weakness?

General **Wickham**. The Army's modernization effort has and will continue to progressively strengthen the air defense of NATO. The fielding of Patriot is the cornerstone of the Army's contribution to NATO's integrated air defense system. Patriot is the finest air defense weapon in the world today and is highly capable against a full range of Warsaw Pact aircraft. Continuing improvements to air defense command and control mechanisms (C2I) and to Patriot, HAWK, and Chaparral missile systems add further strength to NATO's air defense posture. This posture is further improved by the planned replacement of the current Heavy Division Air Defense units with the Forward Area Air Defense (FAAD) family of weapons systems which will significantly enhance the air defense protection of front line, combat units.

The Army is currently developing a capability to counter the emerging Warsaw Pact conventionally armed tactical ballistic missile threat. A two phased upgrade of the Patriot system is under development to provide a defensive capability against ballistic missiles. The first part of this modification was successfully tested at White Sands in September with a Patriot intercept of a Lance missile. We hope to deploy this modification to Europe in the early 1990s. In addition, the Army has established a Special Task Force (STF) on ATM chaired by a general officer. This special group is a joint service effort that will develop a comprehensive plan for countering this serious threat. The STF is due to report its results and recommendations by November.

The modernization efforts undertaken by the Army have strengthened NATO's air defend posture and, with appropriate congressional support, will continue in the future to improve this vital aspect of NATO's defense.

CONVENTIONAL CRUISE MISSILE

Senator QUAYLE. The USAF presently has no operational conventional cruise missile capability for use in crisis situations such as the Libyan attack of last year. Given the recent increase in SAC interest in B-52 conventional capability yet the present climate of no new starts, alternatives need to be explored. The Tomahawk TLAM-C could be such an alternative with minimal integration costs yet with considerable flexibility. What has Hq USAF done to explore this near term potential? The MRASM program was stopped after CDR completion. Has this program been explored for satisfying maritime/conventional capability?

General WELCH. The Air Force has explored many options for satisfying the conventional standoff capability including consideration of foreign systems like Exocet. Short-term answers are constrained by our ability to get resources and integrate the systems to our existing aircraft. Additional information on classified programs can be provided, if requested.

CSAF POSTURE HEARING

Senator QUAYLE. Wouldn't it help SAC if our C^3I nodes were given some active defense with a near-term deployment of SDI?

General WELCH. As we discussed earlier, it is premature to make predictions about an early deployment of strategic defenses. One of the issues about which we have incomplete data concerns the effectiveness of early deployments, specifically the potential to defend specific assets. We call this capability "preferential defense." If it turns out that we could have preferential defense capability, our next step would be to determine the amount of leverage defending certain assets would give us, basically considering how much defense would complicate Soviet attack planning and enhance deterrence. From this perspective, defending C^3I nodes might be attractive for improved command and control of our forces, but it is too early to predict just how attractive.

CLOSE-IN WEAPONS

Senator QUAYLE. The USAF presently relies upon close-in weapons to close Soviet/Eastern Bloc airfields. What program(s) are in FSD that would satisfy this requirement from survivable ranges at a low enough unit cost to be able to close these airfields for 7-10 days in a conventionally fought European war? What current studies are available to quantify the cost to close these airfields in this type scenario?

General WELCH. Our future airfield attack weapon is the Direct Airfield Attack Combined Munition (DAACM). The full-scale development contract award is scheduled for Sep 87. DAACM consists of 8 Boosted Kinetic Energy Penetrators and 24 British-built mines in a Tactical Munitions Dispenser. [Deleted.]

The preliminary estimated average unit cost of DAACM is $89K, base year 1986. DAACM is an overflight weapon. We have not quantified the cost to close airfields for 7-10 days in the scenario you have described.

CONVENTIONAL ALCM

Senator **Quayle**. Now that ALCM production is essentially complete and ACM is on the horizon, has any thought been given to modifying the forward ALCM body section into a submunition or conventionally warheaded missile at some logical point in the future?

General **Welch**. There are no current plans to convert the ALCM-B force to conventional missiles. The ALCM-B is planned to be carried on standoff B-52Hs into the late 1990s. The status of ALCM-B beyond that time will be determined by the threat and bomber force structure.

AC-130 IMPROVEMENTS

Senator **Quayle**. Low intensity wars have been and will continue to be the most likely conflicts with which we will be involved. One of the most versatile weapon systems in waging war at this level is the AC-130 Gunship. However, little has been done to upgrade/modernize this weapon system since the early 1970s. What is the USAF planning for improving the AC-130?

General **Welch**. We recognize the versatility of the AC-130 gunship and its appropriate application within low-intensity conflict situations and have several gunship improvement efforts underway, some already on aircraft in the field. We have a dual-phased effort to upgrade our existing AC-130H gunships which will improve their readiness, reliability and survivability. Sensor and defensive systems are being improved, and we are studying munitions improvements to give us a better capability against armored targets.

In addition, we are currently in source selection for development of a new gunship, the AC-130U. This gunship will have some capabiiity enhancements over the improvements underway for our existing gunships. For example, it will have a strike radar to allow it to track and attack targets through weather or other battlefield obscurations such as dust and smoke. The fiscal year 1987 Supplemental and fiscal years 88-92 FYDP request approximately $920 million for enhancements to our 10 current gunships and 12 new procurements.

OVER-THE-HORIZON (OTH) C^{3}I

Senator **Quayle**. Admiral Trost, I understand that in order for the battlegroup commander to plan and conduct long range strike operations with our newly operational weapons such as AEGIS, VLS, and TOMAHAWK, a C^{3}I Over-the-Horizon (OTH) capability needs to be in place. The CINC's have indicated that this capability does not presently exist and with large numbers of these systems going into the fleet in the near term they are concerned about the ability to effectively use them. Has a study been done within the past six months to accurately define this problem and its solution? If not, when would one be available along with a funding profile to adequately correct the problem?

Admiral **Trost**. It is accurate that Battle Group Commanders require better tools to plan and conduct long range strike operations. Two initiatives are currently underway to increase capability in this area, the TACAIR Mission Planning System (TAMPS), already on board three carriers as an automated decision tool for airwing strike planners, and the Integrated Strike Planning System (ISPS), which will build on TAMPS to coordinate strike planning for TOMAHAWK Missiles (Land Attack (TLAM) and Anti-Ship (TASM)) and airwing strike operations.

Overall C^{3}I OTH Targeting (OTH-T) capabilities such as the Ocean Surveillance Information System (OSIS) Baseline Upgrade (OBU), being fielded in February, 1988 in Norfolk; the Tactical Data Information Exchange Subsystem (TADIXS); the Prototype Ocean Surveillance Terminal (POST), in all Carrier and Battleship Battle Groups (CVBG/BBBG), and Number Fleet Command ships by the end of 1987, a precursor to the Afloat Correlation System (IOC 1991); the Mission Display System (MDS) prototyping effort to automate display of TLAM planning data; and fielding of Inverse Synthetic Aperture Radar (ISAR) in numbers are all complementary programs to improve overall long range strike operations. The Pacific Fleet OTH-T System Operational Concept (SOC) (C3F/C7F Joint TACMEMO UT 0010-1-86), provides tactical procedures now as well as during transition as above capabilities come on line now through 1992.

Fleet capabilities to conduct OTH-T continue to be assessed in CNO Project K310-5 at sea exercises. Phase I was conducted in the Northern Atlantic in August 1986 and Phase II will be conducted in the Pacific Fleet in Fourth Quarter fiscal year 1987. Similarly, the annual Strike/Anti-Surface Warfare and C^{3}I appraisals assess the OTH-T problem and near/long term solutions. The President's Budget is then developed from these assessments and is supported by appropriate funding profiles consistent with overall Navy priorities.

STAND-OFF WEAPON TERMINAL SEEKERS

Senator QUAYLE. What is the status of the programs (such as ATH and I2R) that the Navy has in advanced or full scale development to provide improved terminal guidance for its stand-off munitions/missiles? Does the Navy have an overall plan on how these technologies will be married with the using weapon systems? If not, when would one be available?

Admiral TROST. An example of an improved terminal seeker in development which also demonstrates our efforts to adapt existing, proven technology for other uses is the Imaging Infrared (IIR) AGM-65F Maverick seeker. In January 1987, IIR Maverick successfully completed initial Operational Test and Evaluation. Final Operational Evaluation (OT-IIB OPEVAL) is scheduled for later this year in order to make a full production decision. The IIR seeker will be adapted for use on the Stand-off Land Attack Missile, a modified Harpoon with data link for overland targets, which is currently in full scale development.

Additionally, many seeker projects are under development by industry and at military laboratories which take advantage of new technical capabilities in laser, imaging, autonomous and RF terminal guidance. However, to include a terminal seeker in any weapon system adds significantly to the unit cost of that system, and a concerted effort is underway to identify and/or stimulate industry to find low cost terminal seeker solutions with acceptable military utility. Development of the Advanced Interdiction Weapon System (AIWS) is an example of a weapon system which carefully explores and encourages a low cost terminal guidance capability. Also, AIWS is being designed from the beginning to be able to take advantage of future improvements. It will be a modular vehicle readily adaptable for P3I (preplanned product improvements) to incorporate later advances in seekers, guidance or submunitions.

The Navy Conventional Strike/Anti-Surface Warfare Master Plan provides an in-depth discussion of Naval Aviation's tactical warfighting strategy and blends in the development, procurement and employment of stand-off weapons. The Master Plan is an integral tool in defining new weapon system requirements and is carefully considered in assessing the utility of planned improvements to existing systems. Our developing agencies are in constant touch with the operators and tacticians to achieve an optimum balance between affordability and tactical utility for terminally guided stand-off weapons.

Specific briefings on any of the aforementioned programs are available at your convenience. In particular, a review of the Strike Warfare Master Plan would provide a solid overview of Navy requirements for terminally guided stand-off weapons.

INCREASED RANGE TOMAHAWK

Senator QUAYLE. Is there any Navy Planning to extend TLAM/C's range so that a ship or submarine could be more responsive to crisis situations or capable of striking targets located deep in unfriendly territory?

Admiral TROST. The addition of Global Positioning System (GPS) to conventional Tomahawk Land Attack Missiles (TLAMs) will extend the firing platform's standoff range, improve effectiveness against coastal targets, and enhance responsiveness for crisis responses. [Deleted.] This new booster will IOC in fiscal year 1990.

GROUND LAUNCHED ANTI-SHIP MISSILE

Senator QUAYLE. [Deleted.] Is the Navy pursuing this potentially cost saving idea? If so, provide any studies or analysis along with a funding profile.

Admiral TROST. The feasibility of ground launched anti-ship cruise missiles was initially studied in 1983. [Deleted.] Given the availability of alternate weapon systems for the anti-ship role and the relative high costs of the system, it is not clear that this initiative should be supported. No additional studies are currently planned.

INTEGRATED TOMAHAWK STRIKES

Senator QUAYLE. Do you believe Cruise Missiles, Tomahawk Anti-Ship Missiles (TASMs) and Tomahawk Land Attack Missile Conventional Unitary Warhead (TLAM/C), can play any role in complementary and amplifying the effectiveness of our carrier-based aircraft and surface combatants? Do you believe it would be of any help if SAC had longer range Cruise Missiles on the B-52's than they now have dedicated to support the Navy?

Admiral TROST. Cruise missiles are force multipliers that ideally complement our carrier based aircraft and existing surface combatant land and anti-ship capabilities. One of the primary intended uses will be in coordinated TOMAHAWK and Tactical Aircraft strikes against heavily defended land and ship targets. Utilizing cruise missiles in a defense suppression role will significantly reduce aircraft attrition. [Deleted.]

Senator GORE. We have come to the end of this hearing. Thank you. We stand adjourned.

[Whereupon, at 1:01 p.m., the committee was adjourned, to reconvene upon the call of the Chair.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEARS 1988 AND 1989

TUESDAY, FEBRUARY 17, 1987

U.S. Senate,
Committee on Armed Services,
Washington, DC.

AUTHORIZATION REQUEST

The committee met in open session, pursuant to notice, at 2:04 p.m., Senator Sam Nunn (chairman) presiding.

Present: Senators Nunn, Exon, Levin, Kennedy, Bingaman, Dixon, Glenn, Gore, Wirth, Shelby, Warner, Thurmond, Humphrey, Quayle, Wilson, Symms, and McCain.

Staff present: Arnold L. Punaro, staff director; Carl M. Smith, staff director for the minority; Romie L. Brownlee, deputy minority staff director; and Patrick A. Tucker, minority counsel; Robert G. Bell, Jonathan L. Etherton, Judith A. Freedman, John J. Hamre, Ronald P. Kelly, James R. Locher III, David S. Lyles, Russel E. Milnes, Frederick F.Y. Pang, Gordon G. Riggle, Mark B. Robinson, Patricia L. Watson, and Daniel J. Wildfong, professional staff members; Mary J. Kampo and Debra A. Rice, staff assistants.

Also present: Jeffrey B. Subko, assistant to Senator Exon; Gregory B. Craig, assistant to Senator Kennedy; Edward M. McGaffigan, Jr., assistant to Senator Bingaman; Charles C. Smith, assistant to Senator Dixon; Milton D. Beach, assistant to Senator Glenn; Leon Fuerth, assistant to Senator Gore; Jeff Hyche, assistant to Senator Shelby; Dale F. Gerry, assistant to Senator Cohen; Henry D. Sokolski, assistant to Senator Quayle; Mark J. Albrecht, assistant to Senator Wilson; Alan Ptak, assistant to Senator Gramm; and Samuel J. Routson, assistant to Senator Symms.

OPENING STATEMENT BY SENATOR SAM NUNN, CHAIRMAN

Chairman Nunn. The committee will come to order.

I want to welcome Secretary Weinberger and Admiral Crowe back to the committee this afternoon. Both of you have already testified before our committee this year on the subject of military strategy, and we appreciate your splendid cooperation in helping us get our strategy hearings off to a good start.

The strategy hearings have provided a useful background against which we can begin our review of the budget, namely the President's fiscal years 1988 and 1989 defense budget.

By itself, the overall level of defense spending proposed by the President for fiscal years 1988 and 1989 is a level that I believe most of the committee would probably support. The 3 percent real growth in defense spending requested for fiscal year 1988 is the smallest annual increase in the defense budget requested under President Reagan. It also comes about after 2 years of negative growth, largely brought about by the efforts to get the overall deficit down and also by the pressures of the Gramm-Rudman budget targets.

The problem, Mr. Secretary, which I hope we can get into this afternoon, is that we have a realistic defense spending level, in my view, in the broader context of an unrealistic Federal budget for fiscal years 1988 and 1989.

The overall Federal budget for fiscal year 1988 submitted by the President suffers the same serious shortcomings of the last several years. First, the unrealistic assumptions that seriously understate the deficit, according to the Congressional Budget Office and other more independent assessments.

Second, one-time asset sales that, while they may be justified in their own right, we have to judge them in their own right, they do very little to solve the long-term deficit problem. Even if the sales are approved by the Congress, next year we are right back where we started because they are one-shot propositions.

And that is what happened last year. The Congress criticized the President's budget for having those asset sales and then increased the number of them in its own budget. So we have both engaged in that. But it certainly does not help the long-term dilemma and certainly does not help the long-term view on defense.

And finally, we will not get into this this afternoon because it is beyond the jurisdiction of this committee, but deep reductions in domestic spending which have been proposed by the President which are far below what a bipartisan majority in the Congress has been willing to support in the past.

Eighty-eight percent of the proposed spending cuts in the President's fiscal year 1988 budget come from one-time only savings or proposals that have been rejected at least once by Congress in the past. The President has been criticizing Congress for not dealing with the fiscal year crisis and for not meeting the Gramm-Rudman deficit targets.

But using the administration's own economic assumptions—and I stress this; this is using the administration's economic assumptions—the President's own budget exceeds the Gramm-Rudman deficit targets in fiscal years 1989, 1990, and 1991 by approximately $20 billion per year.

So although the President, by his own assumptions, in fiscal year 1988 which is the immediate year, meets the targets, the Congressional Budget Office differs. Nevertheless, he meets those targets by his own numbers and his own assumptions and his own submissions. But he does not meet the target, in fact is a long way short of meeting the target for next year.

And we are dealing with a 2 year budget. How do we plan to win approval for modest, sustainable real growth in the defense budget, which is what I think we need, when the President is unable to, by his own numbers, meet the deficit reduction targets by over $60 billion over the next 3 years?

And those, again, are his numbers. He has endorsed the Gramm-Rudman proposal as part of the administration policy, but he does not come anywhere near meeting those targets in the out years.

The Congressional Budget Office estimates that the fiscal year 1988 deficit in the President's budget is $135 billion to $140 billion. This is $27 billion to $32 billion above the $108 billion Gramm-Rudman target, and the 4-year total is likely to be much higher.

So the Congressional Budget Office does not agree with the President's numbers this year, and the President's own numbers come far short of the target in the other years that we have to at least look at and be conscious of, because what we are authorizing is long term authority that has a real impact in those years ahead.

Two years ago this committee took the lead in enacting legislation requiring the President to submit a 2 year budget for fiscal years 1988 and 1989 for the Defense Department. Mr. Secretary, I want to pat you on the back, because you have done, I believe, a very commendable job and deserve a great deal of credit for putting together and submitting what I believe to be a credible 2-year defense budget this year.

You have been a real leader in this respect, and I know Admiral Crowe has been of great assistance to you. And so I thank you both for your leadership.

Unfortunately, our common goal of enacting a 2-year defense budget this year is jeopardized by the fact that the second year of your 2-year budget will be considered in the context of an overall Federal budget that, by the President's own admission, misses the Gramm-Rudman deficit target by $20 billion in fiscal year 1989, and by the Congressional Budget Office calculations the number would go up to probably $30 or $40 billion in that year.

And again, I repeat, it is reported that he does not meet the target in 1988. The difference between CBO and the administration in 1988, although that is going to be of great concern, does not bother me as much as the difference in the second year, because what we are going to be doing there is operating in this committee in a vacuum. We are going to be operating in a situation where we cannot make rational judgments within the defense budget for the second year, when the CBO and OMB both state that the President's budget, as submitted, is way over the Gramm-Rudman targets which he has endorsed.

So that is our dilemma. Maybe we can find some answers to it. I hope we can.

In terms of the specifics of the budget, while the overall level of 3 percent real growth I believe is reasonable, there are some serious questions that need to be asked about the balance and priorities in this budget. I will not go into them today because I know we are all on a time frame that precludes lengthy discussion today. But we will get into this in the questions.

The current fiscal crisis continues to put pressure on the defense budget and undermines our ability to develop a bipartisan consensus for a stable, long-term funding to support our defense requirements, which I know you support and I know that Admiral Crowe supports, and certainly I know that most of the members of this subcommittee support.

The defense budget will continue to be squeezed until Congress and the administration find a way, a political way and an economic way, to put all the fiscal cards on the table: defense spending, entitlements, discretionary, domestic spending and revenues, and try to reach an acceptable compromise.

Until that day comes, we are all going to be struggling with our sector of the budget in a way that is going to be very frustrating and very counterproductive, in my view, to the long term or our Nation's security.

Secretary Weinberger has already informed me he has a Cabinet meeting at 4 o'clock this afternoon, and we are going to try our best to accommodate that. We may end up having to schedule another hearing at some later date. We will try to complete by then and do our best to cooperate.

Senator Warner.

Senator WARNER. Thank you, Mr. Chairman. I will pass to expedite timing.

Chairman NUNN. Senator Dixon has a prepared statement which will be inserted in the hearing record.

PREPARED STATEMENT BY SENATOR ALAN J. DIXON

Mr. Chairman, this afternoon this committee will hold it's second hearing on the macro-budget issues of the administration's 1988/1989 Defense authorization request.

Today we will hear from the Secretary of Defense and the Chairman of the Joint Chiefs of Staff. I hope they can explain how the United States will be able to sustain its conventional war-fighting capabilities in the face of continued stretchouts of major conventional weapon programs and far less spending for the infrastructure, necessary to support the weapon systems purchased during the early 1980's. The necessary spending for spare parts, ammunion, and bases was consciously underfunded. Now the administration cannot afford to restore funding for these programs and still fund their strategic programs. At a time of limited Defense resources, conventional force modernization clearly occupies a much lower priority with this administration. The strategic buildup request by the administration in my view has very serious consequences for our conventional forces.

The administration in their operation and maintenance accounts includes a negative growth of $222.5 million in the Army, $449.3 million for the Navy and $451.2 million for the Air Force. This negative growth will result in a "hollow force" of weapons that are not adequately maintained or operated. The administration's request in the readiness related share of the budget for fiscal year 1988 and 1989 does not begin to make up for the lag in this area during the administration's previous budgets from 1981-1986.

This committee is going to have to make the hard choices that the administration has refused to do in the fiscal year 1988-89 Defense authorization bill. We must realize that there is no room for real growth in the defense budget, that we must provide the proper infrastructure for the weapon systems authorized in 1981-1985 now coming into the force. We must reduce monies for strategic programs and transfer these funds to conventional weapon systems production lines. This committee must review and eliminate marginal programs in all the services and spend that money for readiness and sustainability of our current forces.

Thank you Mr. Chairman.

STATEMENT OF HON. CASPAR W. WEINBERGER, SECRETARY OF DEFENSE

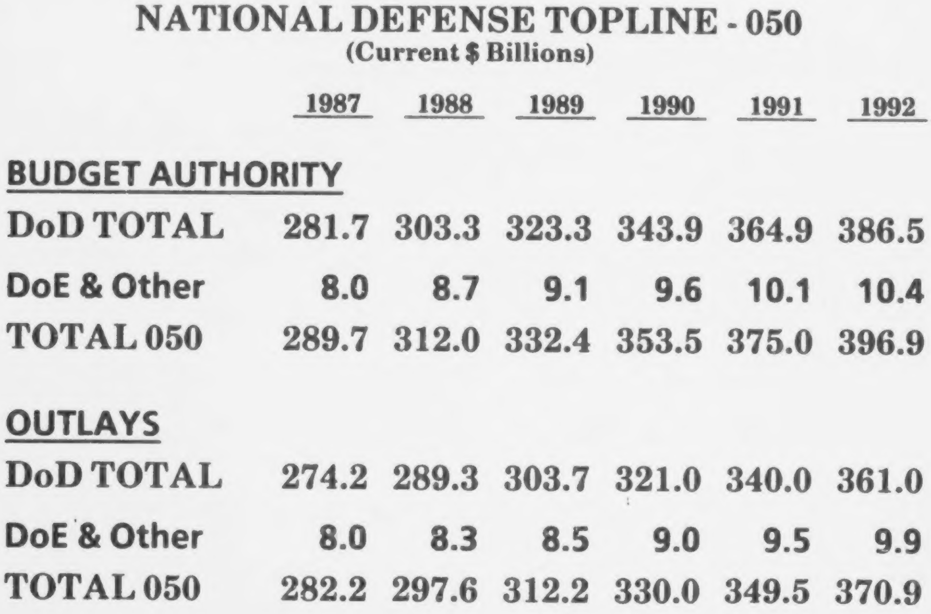
Secretary WEINBERGER. Thank you, Mr. Chairman. I do appreciate your kind comments about the 2 year budget and the level we have submitted.

I would urge upon you at the outset, and I may refer to it again in the course of the next few hours, that it is important to budget for national security on the basis of national security needs. National security needs do not yield to temporary one-time fiscal considerations that may bulk large in everybody's mind. Unfortunately, national security needs are determined by factors outside of our control to a great extent, and it is vital that we adhere to them.

In the interest of expediency—it is not a Cabinet meeting at 4 o'clock. It is a meeting with the President, which I would appreciate very much being able to attend since I have been especially asked to be there.

Chairman NUNN. In either event, we will cooperate.

Secretary WEINBERGER. In consideration of that, I am going to shorten the opening statement from the normal 55 minutes down to about 10 and reduce the number of charts from whatever it used to be to about six or seven. I do think it is important for the committee to see these charts. If at any time I appear to be going too rapidly I will be delighted to stop and go into greater detail. Obviously I will try to spend the bulk of the time responding to your questions.



NATIONAL DEFENSE TOPLINE - 050

(Current $ Billions)

	1987	1988	1989	1990	1991	1992
BUDGET AUTHORITY						
DoD TOTAL	281.7	303.3	323.3	343.9	364.9	386.5
DoE & Other	8.0	8.7	9.1	9.6	10.1	10.4
TOTAL 050	289.7	312.0	332.4	353.5	375.0	396.9
OUTLAYS						
DoD TOTAL	274.2	289.3	303.7	321.0	340.0	361.0
DoE & Other	8.0	8.3	8.5	9.0	9.5	9.9
TOTAL 050	282.2	297.6	312.2	330.0	349.5	370.9

The first one is the regular chart that shows for the next 5 years, the comparison for 1987, the totals, both authority and the predicted outlays, and the amount both for the Department of Energy as well as for the total 050 function, and bear out the points that you made previously about the 3 percent real growth.

FY 1988/FY 1989 DoD BUDGET

BUDGET AUTHORITY & OUTLAYS

(Current $ Billions)

	FY 1986	FY 1987	FY 1988	FY 1989
BUDGET AUTHORITY	**281.4**	**281.7**	**303.3**	**323.3**
% Real Growth	-4.2%	-2.5%	3.0%	3.0%
OUTLAYS	**265.6**	**274.2**	**289.3**	**303.7**

This chart shows the budget authority and outlays for the two budgets, 1988 and 1989, with the comparisons for 1986 and 1987. They show the decline of 4 percent in real growth in 1986, further decline of 2½ percent in 1987, and the 3-percent path that we are trying to resume in 1988 and 1989.

We hope, Mr. Chairman, that we can give very real life and vitality to the 2 year concept by actually enacting a 2 year appropriation bill, as well as an authorization bill, this year. I cannot think of anything that would lead more quickly to the universal adoption of that, and I do not know that there are any strategical obstacles in the way of doing this.

This is not a skeleton outline for the second year budget. These are two genuine, complete budgets for the 2 years, as you have been kind enough to point out.

CONGRESSIONAL REDUCTIONS TO THE PRESIDENT'S DoD BUDGET REQUESTS

(Current $ Billions)

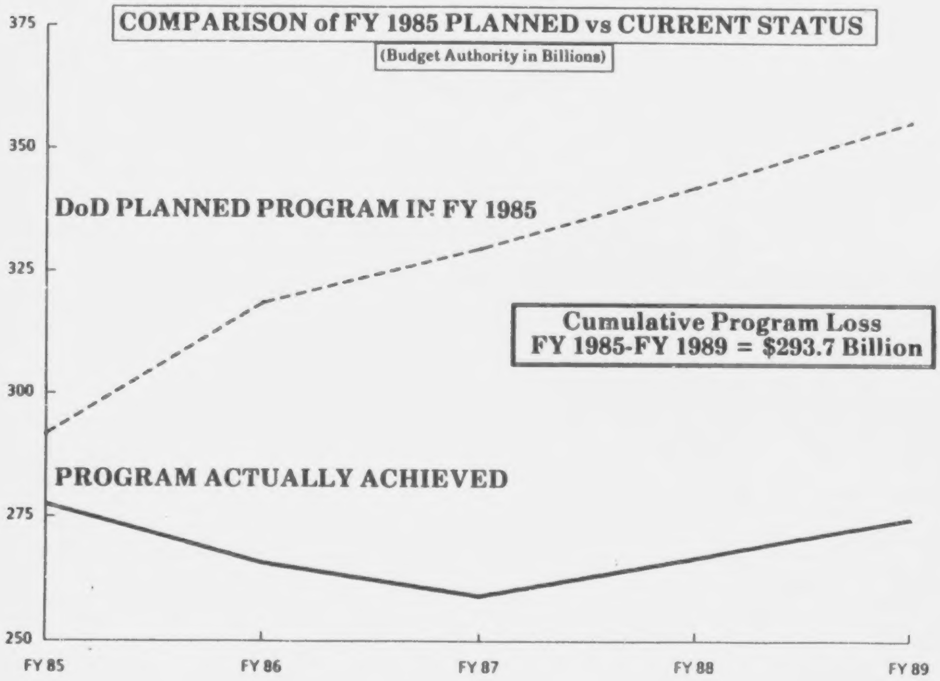
	1984	1985	1986	1987
PRESIDENT'S REQUEST	**273.4**	**305.0**	**313.7**	**311.6**
Congressional Reductions	-14.7 (5.4%)	-19.5 (6.4%)	-35.3 * (11.3%)	-29.9 (9.6%)
ENACTED **	**258.7**	**285.5**	**278.4**	**281.7**

* Includes $11.0 billion sequestered under G-R-H.

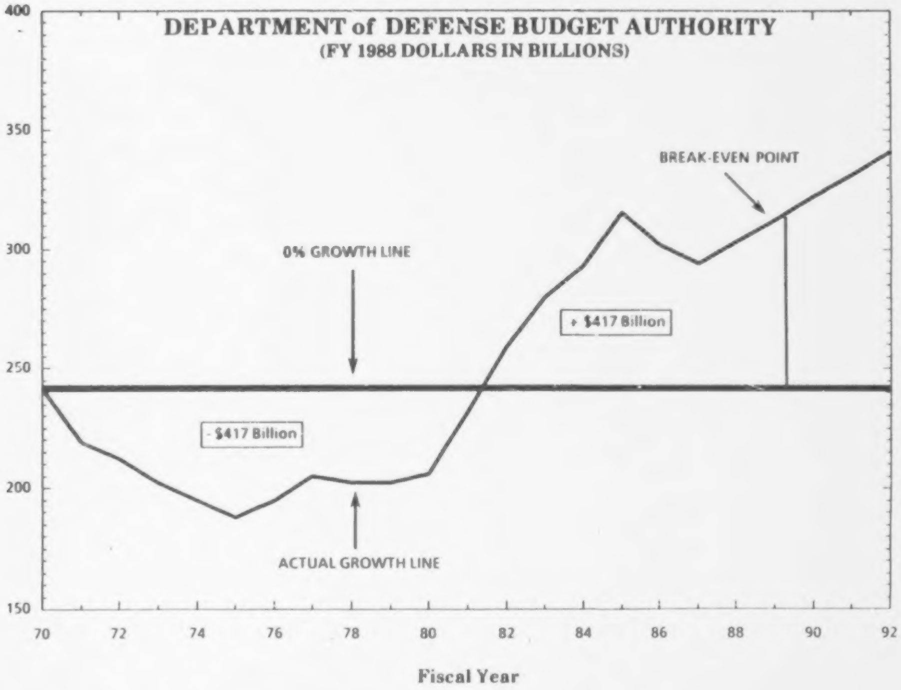
** Excludes Contract Authority.

Here is the President's request for the last 4 years, with the reductions that have been made. And again, you can see that we have made major contributions to the reduction of the deficit, with the 14 percent reduction in the President's request in 1984, almost 20 percent in 1985, 35 percent reduction from the President's request, including $11 billion under Gramm-Rudman, in 1986, and $30 billion again in 1987.

We have made major reductions, both voluntarily and involuntarily, over that period of time.



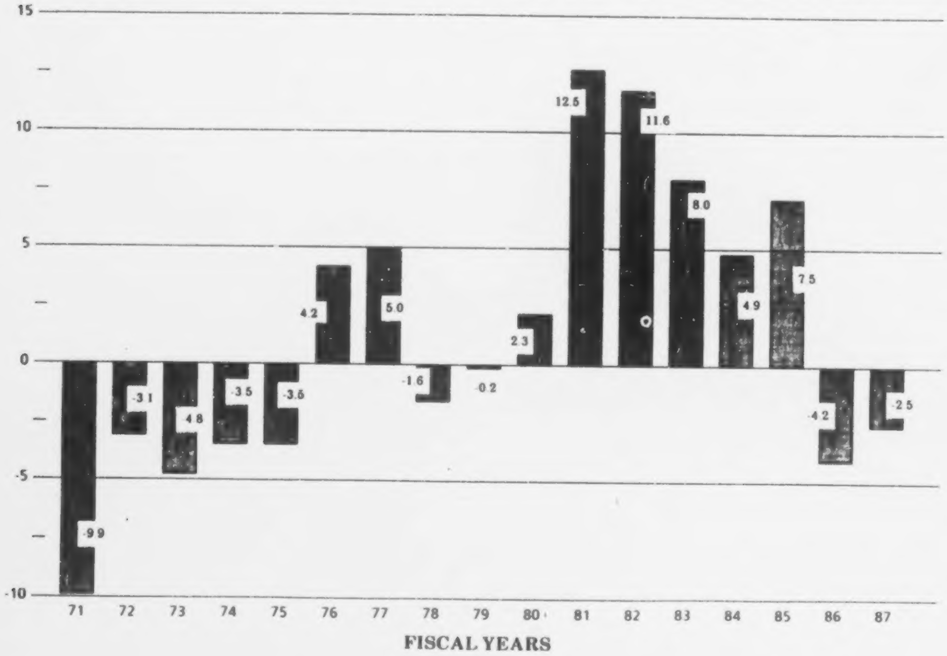
Here is the planned programs that we submitted to you at the beginning of fiscal year 1985, with the amounts actually achieved. You will see that in the course of doing that and assuming that the programs for 1988 and 1989 are enacted as submitted, but measuring them against what we felt to be necessary, that that amounts to a $293 billion reduction.



This is an interesting chart, Mr. Chairman, because it shows during that whole decade of the seventies when we went down some 20 percent, that it took away $417 billion from what would have been appropriated to the Defense Department had we simply stayed level at zero during that entire decade.

We did not do that. We went down 20 percent, and as a result we lost about $417 billion during that decade. In order to have recovered that, we would have to have the kind of growth that we discussed initially. Had we had that, we would have then made that loss up in 1988.

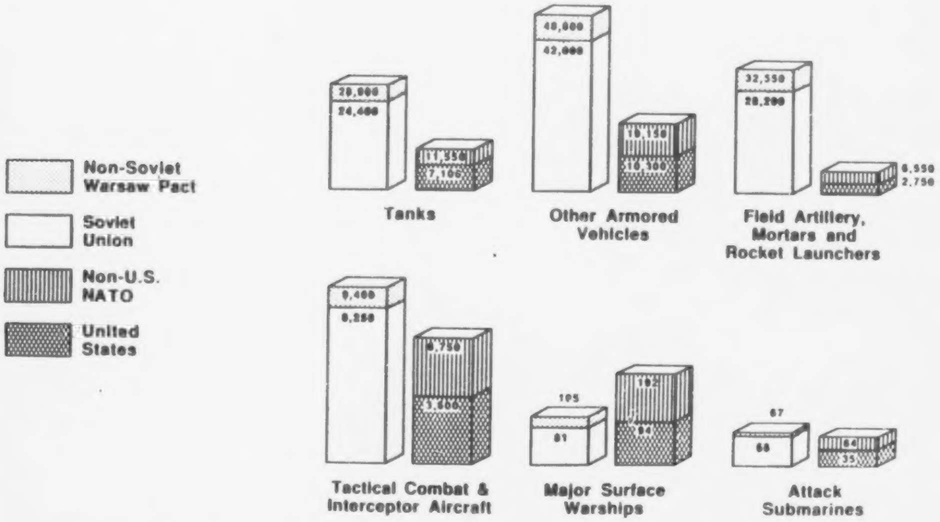
REAL GROWTH IN DEFENSE BUDGET AUTHORITY



It shows how long it takes to recover from a period of prolonged reductions in the amounts actually needed, prolonged reductions even below just the zero growth rate.

PRODUCTION OF SELECTED WEAPONS FOR NATO and WARSAW PACT FORCES

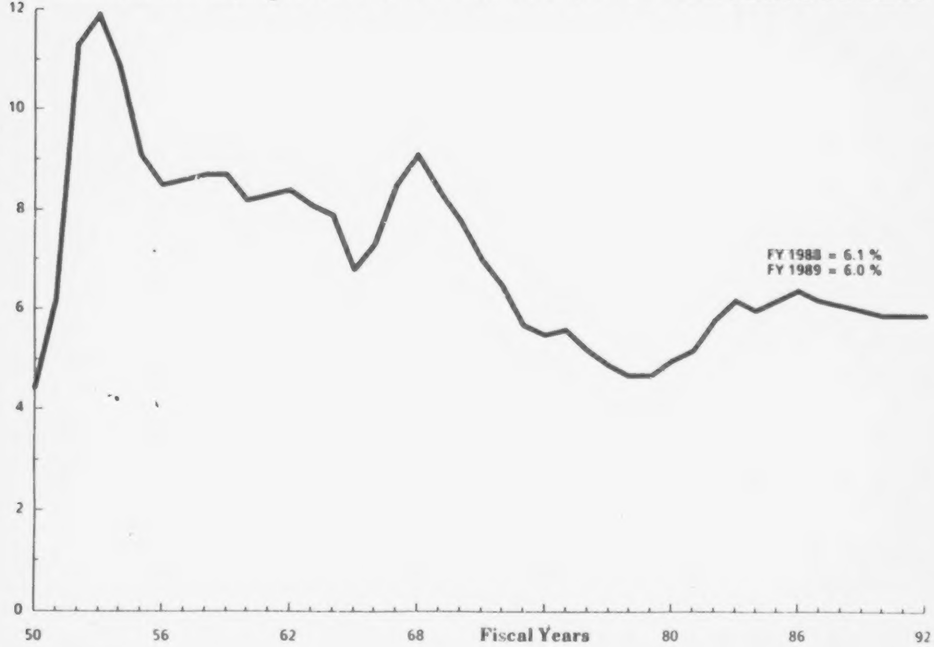
(1977 - 1986)



The production of weapons from both NATO and Warsaw Pact forces remains in a major disproportion all the way. The only areas in which we have had any kind of marked advantage in the period from 1976 to 1986 is in major surface warships, as Congress has been generous in helping to fund our 600 ship Navy and as the NATO nations have also added substantially to their naval strength.

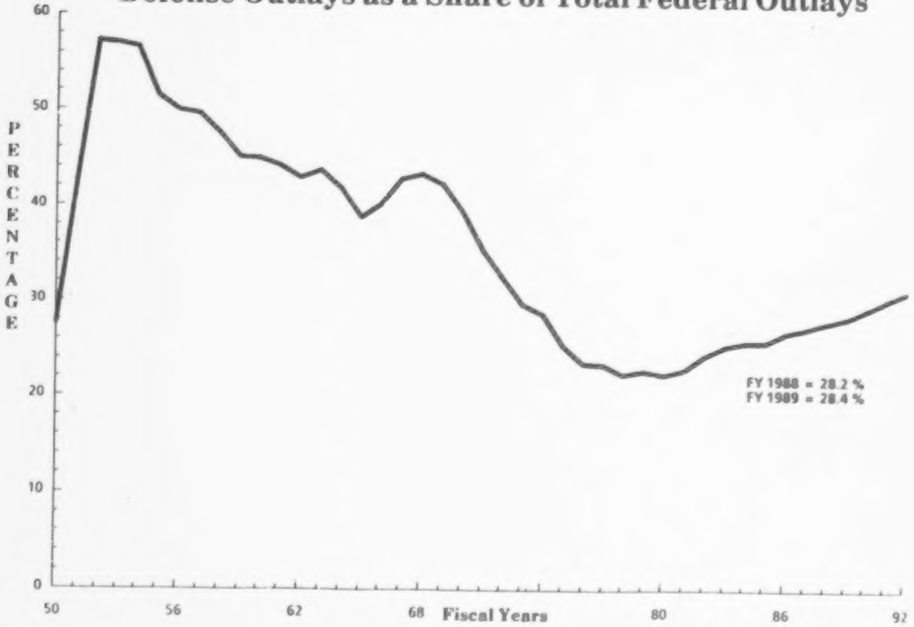
Otherwise, we have been heavily outproduced and outdeployed by the Warsaw Pact countries and by the Soviet portions of that particularly in all the elements of conventional warfare.

Defense Outlays as a Share of the Gross National Product

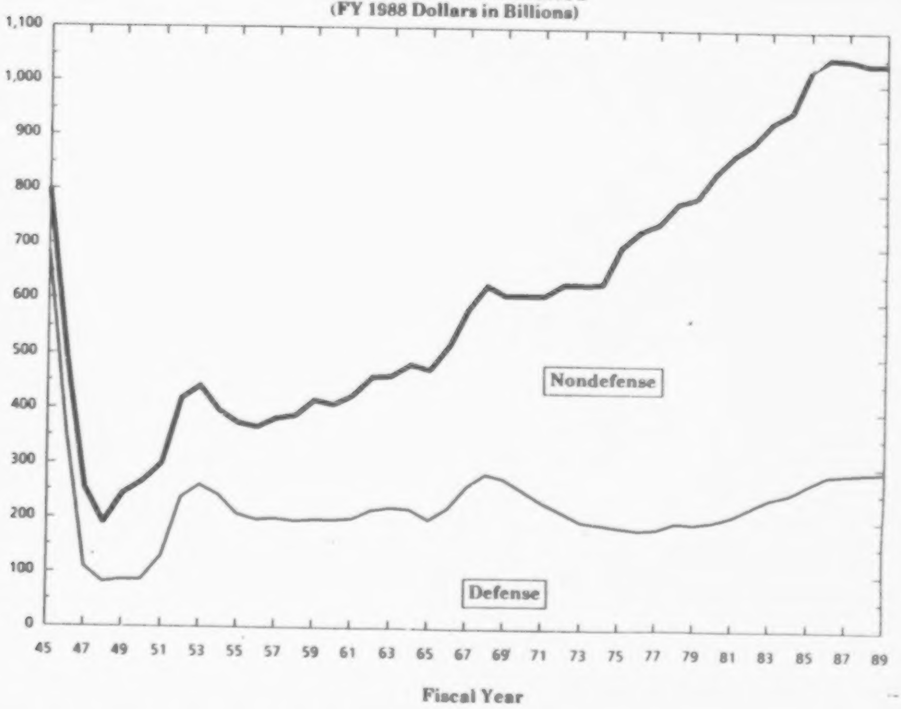


To show that we can afford what we are asking—and again, basing our defense budget on the needs, as opposed to any broader considerations of which there are none, of our country from the security point of view—we have moved from about 12 percent of gross national product for defense down to 6 percent, and both 1988 and 1989 are right in the 6 percent range of the gross national product.

Defense Outlays as a Share of Total Federal Outlays



We show here that defense has regained some of the strength lost in the seventies, but that has not been a major contributor to the total deficit, because non-defense spending has rapidly and greatly increased.



TOTAL FEDERAL OUTLAYS
(FY 1988 Dollars in Billions)

In the fifties, the defense spending measured in 1988 dollars was much more. Now we are at a point where the light blue shows why the deficit has been created in the amounts that it has. That is the non-defense spending increases.

FY 1988/FY 1989 DoD BUDGET
BUDGET AUTHORITY BY TITLE
(Current $ Billions)

	FY 1986 Dollars	% Change	FY 1987 Dollars	% Change	FY 1988 Dollars	% Change	FY 1989 Dollars
MIL PERS	67.8	8.8%	73.8	6.2%	78.3	4.2.%	81.6
O & M	74.9	4.9%	78.5	10.2%	86.6	5.7%	91.5
PROC	92.5	-7.9%	85.2	-1.4%	84.0	12.7%	94.6
R D T & E	33.6	7.1%	36.0	21.5%	43.7	1.2%	44.3
MIL CONS	5.3	-2.8%	5.1	28.6%	6.6	4.6%	6.9
FAM HOUS	2.8	11.3%	3.1	11.7%	3.5	5.7%	3.7
OTHER	4.5	-	-	-	0.6	-	0.8
TOTAL	**281.4**	**0.1%**	**281.7**	**7.7%**	**303.3**	**6.6%**	**323.3**

Here is the breakdown by function, and it shows basically that we have had the kind of growth that we need in 1988 over the reductions that took place in 1987. And naturally, there are some more pronounced increases in some areas than others.

Look at procurement, for example. It went down in 1987 and 1986. So we do need to pull that back up. RDT&E has gone up by a substantial amount, and a lot of that increase is in strategic defense, as it should be.

FY 1988/FY 1989 DoD BUDGET
MANPOWER
(END STRENGTH IN THOUSANDS)

	FY 1986	Delta	FY 1987	Delta	FY 1988	Delta	FY 1989
ACTIVE DUTY							
ARMY	781	0	781	0	781	0	781
NAVY	581	+6	587	+6	593	+10	603
MARINE CORPS	199	+1	200	0	200	0	200
AIR FORCE	608	-1	607	-8	599	+2	601
TOTAL MILITARY 1/	2,169	+5	2,174	-2	2,172	+12	2,184
RESERVES							
SELECTED RESERVES	1,130	+27	1,157	+33	1,190	+23	1,213
CIVILIANS							
TOTAL CIVILIAN 2/	1,112	+12	1,124	-1	1,123	+2	1,125

Note: 1. Includes Military assigned to Defense Agencies and Cadets.
2. Civilian End Strength includes Classified, Wage Board, Foreign Indirect, Civilian Technicians, and Permanent Part-time.

This chart shows that basically we are staying level in manpower requests. We do need more for the Navy as more ships come on line, but otherwise the services remain basically level. The reserve strength, however, has gone up very well, which is extremely gratifying since we depend heavily on reserves and guard for the total force. And the civilian employment remains practically level.

ACQUISITION IMPROVEMENTS

- **Cost Growth for Major Weapon Systems:**

end of CY 1980	14%
end of CY 1985	<1%

- **Multiyear Procurements:**
  - FY 1982-FY 1987:
    - 46 multiyear contracts approved;
    - $7.7 billion in projected savings.
  - FY 1988/FY 1989:
    - 9 multiyear programs requested;
    - $1.0 billion in anticipated savings.
- **Increased Use of Competitive Contracts:**

FY 1981:	40 % of all contracts awarded competitively
FY 1986:	79 % of all contracts awarded competitively

- **Spare Parts Acquisition Initiatives:**
  - Savings of $3.8 billion FY 1984 - FY 1986.

This chart shows the acquisition improvements, the savings that we made because multi-year procurement saved us about $7 billion, $7.7 billion in the years from 1952 through 1987.

The top statistic is the one of which we are most proud. It shows that in 1980 the cost growth for the 1984 major weapons systems was 14 percent a year and now it is minus 1 percent. We actually have a reduction in cost of these systems from year to year, which is reflective, obviously, of lower inflation, but most particularly of management and close-hand management of all of these major projects.

We also have increased our use of competitive contracts, which Congress has been very interested in, from 40 percent of those contracts when we started to almost 80 percent of the contracts now being awarded competitively. The spare parts acquisition initiative saved close to $4 billion.

[The prepared statement of Secretary Weinberger follows:]

Prepared Statement of the Secretary of Defense, Caspar W. Weinberger

Introduction:

Mr. Chairman, distinguished members of the Committee, I appreciate this opportunity to discuss the President's defense budget for fiscal years 1988 and 1989. The President and I have been longtime proponents of a two-year budget. In the FY 1986 Department of Defense Authorization Act, the Congress expressed its intentions to authorize a two-year budget for the Department of Defense for FY 1988/FY 1989. Subsequent to these optimistic words, however, the authorization process for FY 1987 nearly failed altogether. The appropriations committees failed to achieve separate DoD appropriations legislation, resorting ultimately to an omnibus continuing appropriations bill. And, in the midst of the struggle to achieve some degree of control in the budget process, the topline for the Department of Defense fell to a level lower than that approved for FY 1985. In efforts to meet arbitrary fiscal targets, it often appeared as though legitimate program requirements became irrelevant to the review process.

It is exactly this kind of budgetary chaos that two-year budgeting may prevent by allowing us the opportunity, every other year, to focus on overall defense issues and priorities rather than line item detail and budget totals. I am enthusiastic about the opportunities inherent in two-year budgeting and will work with you to ensure its success. I intend to persist in my attempts to explain and defend the defense requirements presented in the President's budget. I hope that you and your colleagues in the Congress will strive to get the budget process back on track. All of us within the Department of Defense stand ready to assist you in any way we can as you review this defense budget.

If two-year budgeting proves successful, the FY 1988/FY 1989 defense budget will be the last budget to be fully implemented by this Administration for the Department of Defense. It has been a tumultuous seven years. We have had the

Congress embrace the President's military program enthusiastically and throw its bipartisan support behind our revitalization efforts. And, more recently, we have seen that enthusiasm wane and defense funding levels fall. As a result of that early support, we have seen dramatic improvements in many areas of our military. We have quality people, with quality equipment, whose capabilities are more developed than at any time in the recent past. But, surely no one in this room would expect continued progress if funding levels fail to provide for even small levels of growth. The costs of goods and services in the marketplace are declining no more for defense than for others. We seek efficiencies and economies wherever we can, but we cannot expect them to generate sufficient savings to offset the effects of lower funding levels. Lower levels of defense funding, quite simply, mean lower levels of defense. We will have to procure reduced quantities of equipment; we will have to operate and train at reduced rates; and we will have to reduce the level of research and development of future technologies. And, we will have to do this at a time when the challenges confronting this Nation are increasing. The President's budget requests a small but essential level of growth for the Department of Defense. It does so within the deficit targets mandated by Gramm-Rudman-Hollings legislation. We do not challenge the need to control the deficit. But, we must do so without undue risk to the significant progress made in improving our military forces.

The DoD Budget:

The budget before you today requests budget authority of $303.3 billion in FY 1988 and $323.3 billion in FY 1989. This reflects 3 percent real growth per year in funding. We cannot continue to experience negative growth in defense funding levels without placing at risk the military improvements accomplished with prior year investments. We need 3 percent real growth to sustain improvements made early in this Administration and to continue approved policies and programs. Outlays are projected at $289.3 billion in FY 1988 and $303.7 billion in FY 1989.

It is important to realize just how much of this year's budget request supports prior year investments and how much will be applied to new investment. If the Department did not procure one new weapon, one new piece of equipment, or any additional research, we would only realize a reduction of $30.2 billion in outlays in FY 1988. Similar action in FY 1989 would save only $34.2 billion. New investment programs account for only 10.4 percent of total defense spending in FY 1988 and 11.3 percent in FY 1989. So, you can see where we are forced to take reductions when funding levels result in negative growth. Failure to invest in new procurement or new research and development robs the future. But just as surely, failure to provide sufficient funds to support existing and previously funded systems robs the past by rendering investments made in prior years less effective.

While we have been increasingly unsuccessful in achieving our desired funding levels for defense, we have been increasingly successful in making those resources go further. We have supported growth in the defense budget only to the extent that it provides additional capability. We have focused on management reforms and streamlining the acquisition process. Wherever possible, we have taken advantage of competition and private sector investment. It is unfortunate that, as we demonstrate increasing success in these areas, many in the Congress view these accomplishments as reasons for imposing additional reductions to our programs. We find ourselves in a 'damned if we do, damned if we don't' situation.

I would like to take a moment now to review the defense program supported by the FY 1988/FY 1989 budget request.

The FY 1988/FY 1989 Defense Program:

Obviously, a major concern in formulating the defense programs for FY 1988 and FY 1989 was the need to continue to improve our defense posture, albeit at a lower level than required as a result of congressional action on recent requests. With this Administration and the Congress working together, I believe our overriding objective must be to keep defense funding on an even keel, avoiding the peaks and troughs that have plagued our military investments over the years. If this nation could achieve even a modest commitment to annual growth in the defense budget, we would find our resources better utilized and our military better supported than under the 'roller coaster' funding pattern that prevails. When we underfund defense programs, we not only reduce our ability to modernize and adequately support our forces, but we push costs into the future, where we will ultimately pay higher prices. It will take tremendous national resolve and more time and resources to recover from these troughs, as we discovered in 1980.

Fortunately, in 1980 the resolve was there and the resources were available. Yet, had we merely maintained a commitment to 2 percent growth in military spending over the last twenty years, we would be further ahead militarily than we find ourselves today. And, ironically, we have failed in some cases to achieve that which we have demanded of our allies. Zero or negative growth undercuts our efforts to lead our allies to restore a balanced and vital deterrent.

This Administration has successfully met the political and economic challenges that appeared overwhelming in January 1981. The economy has expanded, record levels of new businesses have been incorporated, and there is greater investment in plants and equipment than ever before. Inflation is at its lowest level in nearly a decade-and-a-half. The Administration has also been successful in meeting the national security challenge. But, just as businesses need sustained investment to grow, so does our nation's security depend on consistent and sufficient defense budgets. The threats to our security and that of our allies are no less today than in 1981. One might even say they have increased as the preoccupation with the deficit detracts from the real and sole purpose of the defense budget. The defense budget is one reflection of this nation's commitment to national security. We must not lose sight of that commitment in the heat of budget rhetoric and political processes.

One need not look far to find the threat to those values and institutions that this nation holds dear. We need only observe Soviet domination of Eastern Europe, the occupation of Afghanistan, and their influence in Nicaragua, in Cuba, in Syria and Libya, or in Angola and Ethiopia. None of these examples is recent. Since this Administration took office, this list has not grown. The most tangible success of our military revitalization has been the resulting relative inaction of our adversaries. Not only have there been no new Afghanistans, but the Soviets have demonstrated an increasing willingness to return to the negotiating table. These are no small consequences. These are very realistic responses to the strong and visible commitment this nation has demonstrated in these last six years to the modernization of our military forces. Our gains have been impressive, perhaps more so to our adversaries than to some at home.

And now we stand at the threshold of potentially significant gains in arms control and reduction. The United States and the Soviet Union have initiated serious and productive discussions that promise a future less threatened by strategic arms. But, reducing strategic arms does not lessen the need for defense. Rather, it becomes all the more critical that we protect nuclear deterrence at lower levels and also strengthen conventional capability. We have carefully structured our defense program to provide for increases in our conventional readiness and sustainability. Strategic weapons notwithstanding, we confront an awesome conventional threat. Roughly half of Soviet conventional forces face Europe. The Warsaw Pact forces continue to widen their numerical advantage in ground and tactical air weaponry over NATO forces. Further, they continue to make substantial progress in the quality of those weapons. In addition, the Soviets sustain a war in Afghanistan and supply arms to middle eastern states hostile to the United States and her allies. Some of the Soviets most ambitious efforts to influence other nations occur by proxy, primarily through Cuba. Cuban troops actively represent Soviet interests in Ethiopia and Angola, and aid the leftist regimes of Nicaragua and Mozambique.

Military Personnel

Active Duty Personnel

Nowhere have our efforts to improve our military forces been more evident than in the quality and the experience of our military personnel. The budget requests $78.3 billion in FY 1988 and $81.6 billion in FY 1989 for military personnel costs. Military personnel end strengths remain essentially flat through the budget years, increasing only as necessary to man new ships, squadrons, equipment, and associated support units scheduled to enter the force structure during this period. Levels requested for the Army will support a force structure of 28 active and reserve divisions. The increased levels for the Navy are tied directly to fleet readiness requirements. The Air Force levels decline somewhat, with the focus being placed on retention of quality personnel.

Recruiting and Retention

While we have made significant improvements in the area of recruiting and retaining our military personnel, we cannot ignore the implications of an improving economy and a shrinking population pool on our efforts to compete with the private sector for quality people. We began to see some softness in our gains at the end of FY 1985, and figures for FY 1986 confirm that future success in this area will not come easily.

In order to be competitive, the budget continues our support for adequate levels of compensation and a basic standard of living for all our service members. The budget constraints of these past few years have caused military pay raises to remain at modest levels. Still, the Administration remains committed to the principle of pay comparability. Only by providing an attractive overall military compensation program can we even begin to attract and retain the appropriate mix of experience and skills. The budget requests a 4 percent military pay raise in FY 1988 and 4.3 percent in FY 1989. These levels will generally approach the expected increases in civilian wages as measured by the Employment Cost Index.

Reserve Components

Reserve forces continue to make a significant contribution to the total force. The budget reflects an increase of 32,964 end strengths in FY 1988 and 23,100 in FY 1989 for the Reserve and National Guard components. These increases are commensurate with their growing role in the Total Force Structure and accompany the deliveries of additional equipment.

Consistent with the increasing demands placed on our reserves, they continue to receive our most modern military equipment. Through the budget period, early deploying reserves will receive Bradley Fighting Vehicles, AH-64 Apache and UH-60 Blackhawk helicopters, KC-130T tanker and C-130H cargo aircraft, as well as F-16 fighters.

The Naval Reserve Force (NRF) is being expanded with the scheduled establishment of two reserve squadrons of countermeasures helicopters. All new MCM-1 mine countermeasures ships will be operated eventually by the NRF along with a growing number of amphibious assault ships.

Civilian Personnel

The budget request for civilian personnel supports end strength estimates of approximately 1,123,000 in FY 1988 and 1,125,000 in FY 1989 to support a wide range of programs and activities. The budget requests a 2 percent pay raise in FY 1988 and 3 percent in FY 1989 for the civilian workforce, effective January 1 of each fiscal year. We continue to place emphasis on improving the acquisition process through improved contract administration and audits, and it is largely through the efforts of our civilian personnel that we are attempting to ensure that defense resources are properly and efficiently utilized.

Modernization

Strategic Forces

The improvements already achieved and our commitment to continue the modernization of our strategic forces have played a large role in creating a favorable atmosphere for arms reductions talks. Older systems, some of which have been operational for over twenty years, are being replaced with newer, more capable systems. The first of five squadrons of B-1B bombers is now in service. These aircraft, along with air-launched cruise missiles deployed on selected B-52 bombers, provide a reliable deterrent that will be further enhanced with the introduction of the Advanced Cruise Missile (ACM) and the Advanced Technology Bomber (ATB) in the late 1980s or early 1990s.

Eight Trident submarines have been delivered and we continue to build one submarine a year. The development of the D-5 missile is on schedule and will provide us with the ability to retaliate effectively against hardened Soviet targets using sea-based forces. The first of 50 Peacekeeper ICBMs are being installed in Minuteman silos and serve as a powerful deterrent. In addition, the President recently approved development of a mobile, rail garrison basing mode for the Peacekeeper, and full-scale development of a single warhead Small ICBM.

Equally significant, although less visible, are the gains we have made in our command, control, communications, and intelligence (C^3I) systems. Our ability to direct an effective response in the face of nuclear attack has been strengthened.

Strategic Defense Initiative

Strategic arms limitations will not be a panacea for possible military confrontation, but they are important steps along the road to lasting world peace. We are more optimistic about that journey because of the strides we have made in improving our military forces and in exploring the alternatives to basing our security on the deterrent of mutual annihilation. The Strategic Defense Initiative remains the cornerstone of our policy to responsibly reduce our reliance on offensive ballistic missiles for nuclear deterrence. We take it seriously. More importantly, so do the Soviets. By the late 1990s, more advanced defense may substantially change the nature of the strategic deterrence. Our SDI has made impressive progress in developing technologies that will make defense against ballistic missiles feasible. If our efforts in this area are successful, we could enter an era where we are no longer dependent almost exclusively on strategic offensive weapons.

While the Administration's SDI program has received a great deal of publicity and has been subject to much debate, the Soviets have proceeded with an impressive SDI effort of their own. Moscow is surrounded by the only operational antimissile defense system in the world. Begun in the 1960s, this system has been continually upgraded with improved radars and missiles. The Soviets are actively at work on advanced SDI technologies in a level of effort that compares to our own. The Soviets currently possess prototype ground-based lasers that could be used to interfere with U.S. satellites. And, they are continuing research in particle beam, radio frequency, and kinetic weapons. We cannot fail to respond to this challenge. Furthermore, SDI is integral to arms control. It permits us to make significant reductions in offensive weapons by supplying an insurance policy against noncompliance.

Conventional Forces

As we seek progress in strategic arms control, our other nuclear and conventional forces assume greater importance. We must ensure that our forces are provided with modern, well maintained, and sufficiently supported equipment. Conventional forces must be carefully balanced between active and reserve and between our own and allied capabilities.

Our conventional forces are structured and deployed primarily to counter our most serious global threat--Soviet military power. In Europe, the conventional force balance has historically favored the Warsaw Pact. For over three decades, the Warsaw Pact has maintained substantial quantitative advantages over NATO in ground and tactical air forces in theater. The Pact has maintained an advantage of over 2-to-1 in main battle tanks for the past twenty years. Over the same period, they have increased their advantage in artillery from less than 2-to-1 to over 3-to-1. Since 1965, NATO has lost its advantage in surface-to-air missiles (SAMs) and combat helicopters. The Pact has consistently deployed infantry fighting vehicles faster than NATO. Today they hold roughly a 3-to-1 advantage in those types of systems. The Soviets' military advantage has been the ability to mass-produce weapons. Their production rates have exceeded NATO for at least ten years and have allowed the Warsaw Pact to expand and modernize various elements of their conventional forces. The sophisticated new fighter aircraft and major combatant warships that have recently begun entering Soviet forces, however, have been delivered thus far at notably lower rates than their predecessors. Accordingly, our ability to compete numerically--particularly in conjunction with our Allies--appears to have improved.

The Conventional Defense Improvements (CDI) program within NATO, established in response to the need to enhance conventional capabilities in the face of this significant ground forces equipment numerical advantage, is intended to identify emerging technologies that will improve the conventional balance. This effort, in conjunction with initiatives to increase the level of arms production cooperation will ensure that our conventional forces remain a realistic deterrent and may even reverse recent unfavorable trends.

But, the Soviet threat is global. They are continually upgrading the equipment of over 50 divisions deployed in the Far East and modernizing more than 40 tactical air regiments. The Soviet Pacific Fleet is their largest fleet. And, in the Middle East and Southwest Asia, the Soviets continue to enhance their presence by maintaining ground divisions, tactical aircraft, and mobile missile launchers in their military districts contiguous to the region. Our FY 1988/FY 1989 program reflects our commitment to maintain a strong conventional military posture to combat this global presence of troops and military hardware.

Land forces

Army and Marine Corps land forces represent the only component of our armed forces capable of holding or retaking territory. An indispensable element of our conventional deterrent, they are forward-deployed in Europe and the Far East. Those located in the United States serve as reinforcements to these forces or are prepared to deploy rapidly to other areas of the world. During FY 1988 and FY 1989 our land force structure and active end strengths remain essentially constant. The Army will field 18 active and 10 reserve divisions, while the Marine

Corps will field 3 active and 1 reserve. The Army will continue to reorganize its active force structure. The light force structure will grow as the 6th Light Infantry Division, based in Alaska, and the 10th Mountain Division, at Fort Drum, New York, each receive an additional active infantry battalion.

The ability of our land forces to fight with little or no warning and to reinforce fighting forces on short notice demands high levels of combat readiness. Readiness, in turn, mandates adequate levels and quality of equipment and proper training. In support of these troops, the budget requests a total of 1,234 Bradley Fighting Vehicles, 1,200 M-1 tanks, and 67 AH-64 Apache helicopters. Combined Army and Marine Corps procurement of TOW missiles will remain at approximately 12,000 a year for FY 1988 and FY 1989. Air defense systems protect our forces during the conduct of close combat and rear defensive operations and the budget years continue our efforts to increase divisional air defense systems. Likewise, the budget will continue to pursue improvements in our ability to detect advancing enemy formations and mass large volumes of accurate, effective firepower against them.

In both FY 1988 and FY 1989, the Army will rotate 28 active and reserve battalions through the National Training Center. The realistic mechanized training available for battalion-sized forces is critical to countering modern Soviet-type armies. To enhance training and sustain readiness, the Army will increase use of simulators and other automated training devices in FY 1988. The Marine Corps air and ground units undergo a rigorous training regime including two live-fire, combined-arms exercises conducted at the Marine Corps Air-Ground Combat Center in California.

We have made progress in recent years in the staying power of our forces through the procurement and prepositioning of major items of equipment and the expansion of stocks of spare parts and other secondary items. Still, we are making slower progress in sustainability than needed and funding for Army and Marine Corps munitions will decrease by 9 percent in FY 1988 and 7 percent in FY 1989 below FY 1987 levels. Funding for secondary-item war reserves will increase slightly in both years.

Naval forces

Over the past six years we have made significant progress in building a larger, more capable fleet. At the end of FY 1986, the Navy had 555 deployable battle force ships, up from 479 at the end of FY 1980. And, the Navy will reach 605 ships by the end of FY 1989. That level represents the minimum objective, given the need to balance force levels necessary to counter the threat within national resource constraints. To sustain this force level in the next decade and beyond, we will need to maintain a steady construction rate of about 20 ships a year.

Within this 600-ship Navy, we seek to achieve specific force structure goals. By the end of the decade, the fleet will include 15 deployable aircraft carriers, 4 reactivated battleships, and 100 attack submarines. Additional new aircraft carriers will be needed to replace carriers reaching the end of their service lives. Initiation of procurement of long leadtime components for two carriers, as proposed in this budget, is the most efficient and affordable way to address this requirement. Due to tighter fiscal constraints, however, achievement of other goals will be delayed until the next decade or later.

We expect the fleet to maintain a high state of readiness through training regularly with other Services and allied navies. Further, we plan to operate at a high tempo. In FY 1988, our request supports 50.5 steaming days per quarter for the forward deployed fleets (the Sixth and Seventh) and an average of 29 days per quarter for the "home" fleets (the Second and Third). Further, efforts will be made to ease the burden of extended overseas deployments on naval personnel through more flexible deployments, including utilizing the battleships for peacetime patrols.

For the most part, the task of building stocks of war reserve spare parts for combatants has been completed, though shortfalls remain in the shore establishments and reserves. Procurement now is focused on achieving munitions needs. The budget request for FY 1988 and FY 1989 includes a total of 985 TOMAHAWK cruise missiles, 262 Harpoon antiship missiles, and 450 MK-48 ADCAP and 377 MK-50 torpedoes.

Supporting our naval forces, the budget requests a variety of sophisticated aircraft. FY 1989 includes long-lead procurement funding for the V-22 Osprey, an advanced tilt-rotor aircraft intended to replace the fleet of CH-46 assault transport helicopters. At the same time, we are continuing our procurement of the CH-53E Super Stallion, the free world's largest helicopter. The Super Stallion provides heavy lift for Marine combat systems such as the seven-ton M198 howitzer and the 14-ton Light Armored Vehicle. Procurement of 6 helicopters in FY 1988 and 7 in FY 1989 supports fielding four squadrons by 1990. The budget also requests funds for the SH-60B/F ASW helicopters, supporting a constrained production cap of 24 SH-60s per year. These antisubmarine warfare (ASW) helicopters will be based aboard almost 100 of our more modern surface combatants, as well as aircraft carriers. Assisting ASW efforts are the P-3C Orion maritime patrol aircraft, serving an important function in long-range offensive operations and barrier patrols. The FY 1988/FY 1989 budget reflects a competitive procurement program for a new P-3G model, with a "winner-take-all" competition for a total of 125 aircraft, including 4 in FY 1990, followed by 25 a year through FY 1994 and 21 in FY 1995.

Tactical air forces

Our tactical air forces represent a flexible, responsive element of our general purpose forces. They can be equipped with a variety of weaponry to support a wide range of military operations. We have seen their effectiveness demonstrated in this past year in the conduct of retaliatory strikes in response to terrorist attacks.

Two-thirds of the Air Force's tactical aircraft are in the active inventory; the remainder are flown by the reserves. Because of fiscal constraints, the Air Force will maintain its near term total force level at about 37 wings. The Air Force continues to plan for growth to 40 tactical fighter wings as an interim objective and will resume growth toward that objective as soon as fiscally possible. The average age of its inventory will be maintained at about 10 years.

In addition to its tactical fighter wings, by the end of FY 1988, the Air Force will operate 14 squadrons (2 active and 12 Air National Guard) of air-defense fighters.

Navy and Marine Corps air wings operate a variety of aircraft types. As an integrated unit, each wing can operate independently in support of carrier battle groups or amphibious forces. The Navy currently has 14 active carrier air wings and two reserve wings. This year, it will introduce a new, "notional" wing configuration, containing a somewhat different mix of aircraft designed to exploit our advantages in air-to-air and air-to-ground combat capabilities. Eventually, 11 of the 14 active air wings and both reserve wings will operate this new mix of aircraft.

The Marine Corps has 3 active air wings and one reserve wing. A typical wing operates some 300 aircraft, organized into 20 to 25 squadrons.

Navy and Marine Corps aircrew readiness is exceptionally high. In FY 1988, they will average 25 hours of flying time per month, or 300 hours a year. This is consistent with FY 1987 levels. It is particularly important that we keep pilot proficiency high, given the recent downward trend in retention. Like the Air Force, the Navy and Marine Corps use Air Combat Maneuvering Ranges and other instrumented ranges to supplement training time in the air.

Through the introduction of new and more capable aircraft, we are able to modernize our air forces and reduce the overall average age of our inventory. The FY 1988/FY 1989 budget proposes a total of 84 F-15E and 360 F-16 aircraft for the Air Force and 24 F-14A/D, 30 A-6F, 156 F/A-18 and 64 AV-8B aircraft for the Navy and Marine Corps.

Supporting and enhancing these air forces are a variety of missiles. The FY 1988/FY 1989 budget includes the procurement of 558 Sparrow; 2,004 Sidewinder; 5,332 Imaging Infrared Maverick; 1,099 Laser Maverick; 990 Phoenix; 5,173 HARM; 2,430 AMRAAM; and 545 Sidearm missiles.

Our defense program for FY 1988/FY 1989 continues to build on the significant gains we have made in conventional forces. The successes we have had in nuclear and conventional deterrence, however, have redirected competition between the Soviet Union and United States to more marginal areas.

Special Operations Forces

As a result, we remain faced with a conflict environment different from either nuclear war or more traditional conventional warfare. An unfortunate side-effect of the success of our conventional deterrent is that our adversaries continue to resort to low-intensity conflict that poses lower risks of larger scale conventional or nuclear confrontation. In most low-intensity conflicts that we have had or that we are likely to encounter, a combination of conventional and Special Operations Forces (SOF) will be needed. In peacetime, SOF, in conjunction with other military forces and federal agencies, participate in security assistance, civic action, and humanitarian assistance operations; they also contribute significantly to our counter-terrorist capabilities. In a broader conflict, the Special Operations Forces are not intended to take objectives or to hold ground. They are intended to complement conventional forces by providing long-range reconnaissance, attacking key targets, obtaining intelligence, organizing partisans and supporting counterinsurgency and guerrilla operations.

This past year, we have addressed and resolved two of the most crucial SOF issues--airlift support and overall organization. The most obvious special operations deficiency has been in airlift and the FY 1988/FY 1989 program requests increased funding needed to meet our wartime requirements. We are enhancing our airlift capabilities by procuring additional fixed- and rotary-wing aircraft and, for the first time, incorporating dedicated SOF tanker support. For the longer term, we have accelerated the procurement of the V-22, the next generation of SOF aircraft.

As part of our revitalization effort, we have undertaken, with the strong bipartisan support of the Congress, a major restructuring of our SOF operations. We will soon establish the Special Operations Command (SOC), a new unified combatant command. All active and reserve component SOF stationed in the United States are being assigned to the SOC. The SOC will have the capability to conduct special operations if so directed by the National Command Authorities. We are also establishing an Assistant Secretary of Defense for Special Operations and Low-Intensity Conflict. This Assistant Secretary will be responsible for both policy and resource oversight, will supervise preparation of SOF programs and budgets based on requirements identified by the SOC, and will represent SOF interests within the decision making councils of the Department of Defense.

SOF, in conjunction with defense and other foreign policy tools, contribute to the Administration's national strategy for combatting low-intensity aggression. Because this form of aggression will remain the most likely and most enduring threat to our security, continued improvement in SOF programs and capabilities continues to be a major priority within the Department. We will succeed as long as we continue to receive strong support and necessary resources from the Congress.

Research, Development, Test and Evaluation

One of the greatest advantages we enjoy over our adversaries is the excellence of our technological base. To protect ourselves from the possibility of some nations gaining future technological advantage over us, we must continue a vigorous program of research and development. The Soviet Union historically has outspent us in research and development, just as they consistently have deployed more new and upgraded systems. However, despite continuing large Soviet investment in military research and development, the United States still maintains leads in 14 of the 20 most important basic technology areas.

The President's highest priority defense effort is the pursuit of experiments and demonstrations to assess the feasibility of Strategic Defense Initiative technologies to support development decisions planned for the 1990s. Other R&D efforts are structured to provide the force of the future. Pursuit of improved integrated circuitry, aircraft propulsion and technology, materials, computers and software, and sensors and signaling technology are among the many areas where we seek to build on our current advantage. Key development programs that will shape the force of the future are: a mobile, rail garrison basing mode for Peacekeeper missiles; the Small ICBM; the LHX helicopter program; Forward Area Air Defense (FAAD); the V-22 Tilt Rotor Aircraft; the SSN-21 Attack Submarine; the Advanced Tactical Fighter (ATF); Navy combat aircraft improvements; very high speed integrated circuits (VHSIC); and the National Aerospace Plane.

Military Construction/Family Housing

Approximately 3 percent of our DoD budget is invested to replace or modernize obsolete facilities and construct new facilities. Our FY 1988/FY 1989 military construction budget request maintains the progress we have made since 1981 and continues to redress the neglect of our facilities caused by inadequate funding in the 1970s. Of special importance are programs that continue the modernization of our physical plant and improve the working and living conditions for our people. We are placing special emphasis on the modernization of our existing family housing inventory and on providing critically needed additional housing, primarily at overseas locations.

Last year I said my goal was to invest at least 2 percent of our total plant value in construction each year. The budget authority we requested last year met that goal. But, even though the Congress voiced its support for improved facilities, the FY 1987 funding for military constuction, including family housing, provided about 80 percent of the budget authority requested. The need for reasonable growth to build better facilities and improve productivity is a perennial issue. I am concerned over the reductions to the military construction and family housing accounts. Congressional action reduced the program to a level insufficient to sustain, maintain, and revitalize our facility plant base. There is a serious need to, at a minimum, maintain budgeted levels of funding to get these programs back on track. Our FY 1988 request of $10.1 billion and our FY 1989 request of $10.6 billion represent the minimum required to meet our immediate facility needs.

DoD Management

One of my top priorities as Secretary of Defense is to ensure that the defense budget is being efficiently and effectively managed. Since 1981, we have initiated numerous efforts to ensure that we are getting the most for our defense dollar. This has become all the more critical in a constrained fiscal environment.

Too often minor instances regarding defense purchases are blown out of proportion. What is not recognized is the awesome task involved in managing an organization of the size and complexity of the Department of Defense. The Department employs 2.2 million active duty military, another 1.9 million in the Reserve Components, and more than one million civilians. Several more million people are working on defense contracts. Defense organizations and facilities span the globe. The Department manages 5,400 properties and installations and operates over 400,000 housing units. The Department deals with over 300,000 contractor establishments and initiates 15 million contract actions each year valued at about $160 billion. Finally, defense supports over one-half of the ship construction and repair industry employment in U.S. private yards.

I say this not to make excuses for management deficiencies, for any deficiency is one too many. The fact is that management of the Department of Defense is a challenge we have faced and improvement in defense management is a success we can claim. We have accomplished this through a variety of management reforms.

We have enhanced the coordination of management efforts. To ensure that key decisions are made quickly, and involve our most senior people, we have placed increased emphasis on the Defense Council on Integrity and Management Improvement (DCIMI)--which is similar in structure to the executive committees found in many major corporations. The DCIMI oversees the development and implementation of a comprehensive plan for management reform.

Implementing the DoD management improvement plan involves aggressively auditing contracts to reduce acquisition costs; focusing efforts to reduce waste, fraud, and mismanagement; ensuring that top level support is both visible and effective; and implementing recommendations made by external sources that are found to be useful and productive. Emphasis is placed on four areas: procurement reform, financial management, productivity improvement, and internal management controls.

Procurement reform

Spare parts management: Three years ago the Department of Defense announced a program to make fundamental changes in the way we purchase and manage spare parts. We have returned to a common sense approach to buying spares, paying prices that offer the greatest value for our defense dollars. Some of the major actions we have taken are:

- the implementation of over 500 spare parts initiatives which are now a permanent part of the way we do business.

- the promotion of increased competition, and the challenging of prices that appear to be unrealistically high.

- the review of 771,000 items as part of a comprehensive "breakout" program to find parts sources other than the prime contractor. Of these, 168,000 were identified for competitive procurement and 170,000 were identified for purchase from the actual manufacturer.

Cost savings and other benefits from the spares reforms have been impressive. Savings from FY 1984 to FY 1986 total $3.8 billion. In addition to the monetary savings, increased competition from the spares initiatives has provided other benefits, such as bringing additional suppliers into the system.

This has broadened the industrial base and improved the overall responsiveness of the Department's suppliers.

Program stability: Program stability contributes to the reduction of total program costs and facilitates long range planning. Two initiatives that support increased program stability are baselining and multiyear procurement. Baselining formally establishes a set of agreed upon goals and objectives that describe the functional specifications, cost, schedule, and other critical factors at the initiation of a major new program. We have established a policy that allows the program manager (PM) to exercise full management authority within the scope of the approved baseline agreement. The Packard Commission emphasized the importance of baselining to program stability and the Congress passed legislation to permit authorization of selected acquisition programs for up to five years unless baseline values for the program are exceeded. We are reviewing service systems to identify appropriate candidates to come under this program stabilizing procedure.

The principal objective of our Multiyear Procurement (MYP) initiative is to achieve savings through economical lot buys. Once the Congress approves a multiyear procurement contract for a major system, we can make a commitment to the contractor that the program will continue, thereby minimizing the contractor's financial risk. Multiyear procurement has accounted for the majority of savings under the acquisition improvement program.

Competition: The high level of management attention directed at improving competition has produced dramatic results. The Department-wide rate of competition for procurement dollars in fiscal year 1986 was $78.7 billion, or 57.2 percent of the total, with another $29.7 billion, or 21.6 percent, of contract dollars being follow-on actions to initially competed contracts.

Financial Management

Financial Management Systems: Improvement of financial management systems within the Department has focused on two primary efforts. First, we seek a single financial management system for each military department and one financial management system for all Defense Agencies. Second, we seek to reduce the number of accounting systems that do not comply with GAO accounting principles and standards. The benefits derived from reducing noncompliant systems and the overall number of financial accounting systems include increased accuracy and a reduction in waste, fraud, and abuse. Current plans call for a 72 percent reduction in total systems and a 93 percent reduction in noncompliant systems by FY 1991.

An associated effort involves the establishment of one civilian payroll system and one civilian personnel system per Military Department, and one integrated civilian personnel/payroll system for the Defense Logistics Agency by FY 1988. The Air Force and the Defense Logistics Agency have already achieved this goal.

Cash management: We have aggressively pursued better payment practices with our industry partners. Over 99 percent of nearly 15 million payments valued at $122 billion were made by the Department without interest penalty payments during FY 1986. During FY 1986, $178 million in Treasury savings were generated by DoD as a result of cash management initiatives to accelerate collections and defer disbursements. Additional savings of $195 million per year are expected during FY 1987 and FY 1988.

Credit management: Total DoD accounts receivable, which excludes foreign receivables, is approximately $925 million. Our portion of the Federal debt is minor, comprising 0.3 percent of the total. However, normal operations do result in debts from such things as payroll overpayments, contractors in default, and dishonored checks. We have established plans to reduce the level of delinquent accounts receivable, and to use credit management techniques to reduce debts. These plans will use collection agencies, credit bureau referrals, salary offsets, penalties and administrative charges, and Internal Revenue Service (IRS) tax refund offsets.

Productivity

The DoD Productivity Program focuses on quality, technology, and the creative management of people in the work place. One of our prime manpower management initiatives is the Efficiency Review Program. It uses industrial engineering techniques to improve work methods and achieve a better internal allocation of personnel. Resources released by this program are then available to meet increasing workloads elsewhere. During FY 1985, 112,000 manpower spaces were covered by efficiency reviews. Reallocation of 843 manpower spaces resulted from these reviews. Dollar savings of almost $32 million have been documented for FY 1985. In FY 1986 over 370,000 manpower spaces were reviewed. Over 200,000 spaces are scheduled for review in FY 1987.

DoD's Productivity Enhancing Capital Investment (PECI) program specifically targets funds for quick return and long-range, high payoff investment initiatives. For instance, investments of $874 million since FY 1977 through FY 1986 are expected to average lifetime savings of approximately $16 for each $1 invested. Investments planned for FY 1987 and FY 1988 are $239 million and $254 million, respectively. A major element of the PECI program is Productivity Investment Funding.

DCIMI

The DoD Council on Integrity and Management Improvement (DCIMI) was established in September 1981, to pursue management improvements throughout the Department. During FY 1986 the council made decisions which included completing additional "should cost" reviews of contracts, studying the costs for increased stockage of spare parts and extended lead times in procurement, approving the DoD Management Improvement Plan (MIP), reducing the number of payroll and personnel systems, correcting material weaknesses reported in the Annual Statement of Assurance, and investigating the impact of procurement procedures on fleet readiness. To ensure the accomplishment of directed actions resulting from the DCIMI meetings, a followup system was developed to track and monitor these actions. During the past fiscal year, there have been 47 directed actions from DCIMI meetings. By the end of FY 1986, 35 of these actions had been completed.

One of the major benefits of the DCIMI is consensus building concerning actions needed to strengthen management. The council also provides focus and momentum for the management improvement initiatives contained in the Management Improvement Plan, and forces issues upward and decisions downward in the Department. The formal followup and tracking system rounds out the DCIMI's comprehensive program.

Contract Audits

Our worldwide contract audit activities are conducted by the Defense Contract Audit Agency (DCAA). DCAA's mission is to perform all necessary contract audits for DoD and to provide accounting and financial advisory services on contracts and subcontracts. The following types of audit services are typically performed by DCAA auditors and result in over 60,000 audit reports annually: proposal evaluations; audits of incurred costs; compliance with the Truth in Negotiations Act; operations audits; compliance with Cost Accounting Standards; termination claims; financial condition reviews; and participation in legal proceedings.

Waste, Fraud, and Abuse

In 1982, the Office of the Department of Defense Inspector General (IG) was established with a concise but far-reaching charter to ferret out and expose waste, fraud, and mismanagement. In order to fulfill this responsibility the IG has established the Assistant Inspectors General for Auditing, Investigations, and Inspections. Further, to provide policy and oversight for the Department's audit and criminal investigative organizations and to ensure followup on audit activities of both the General Accounting Office (GAO) and the IG, the Assistant Inspectors General for Audit Policy and Oversight, Criminal Investigations Policy and Oversight, and Audit Followup were created.

Audit operations: The IG performs audits within the Office of the Secretary of Defense, the Organization of the Joint Chiefs of Staff, the Unified Commands, the Defense agencies, and the Military Departments. Since FY 1982, over 700 audit reports identifying nearly $4.8 billion in savings and cost avoidances have been issued. Potential monetary benefits from all other DoD audits/reviews since FY 1982 total $10.3 billion. The IG will continue its focus on procurement, where a large portion of DoD dollars are expended. Particular attention is paid to waste in overhead charged to DoD contracts, defective pricing, subcontractor pricing practices, and contractor estimating systems.

Audit efforts would be of little value without an aggressive program to ensure that findings and recommendations are carefully considered, and that agreed-upon audit advice is implemented. The DoD Audit Followup and Resolution Program serves this purpose. The internal audit resolution process has successfully concluded corrective action on over 280,000 DoD and GAO audit recommendations, resulting in $14.2 billion in savings and cost avoidances.

The IG provides policy and oversight for 14 audit organizations which assist various DoD management levels on financial matters, internal controls, economy and efficiency, contract pricing, and program results. Significant policy initiatives undertaken to support these organizations include: establishing the most comprehensive auditing standards in the Federal Government; preparing pamphlets to assist auditors in identifying labor and material fraud schemes; and implementing quality control programs for internal audit, internal review, and Military Service exchange audit organizations.

Investigative Operations: The Defense Criminal Investigative Service was established in October 1981 with the primary objective of investigating major theft, fraud, and corruption in the procurement process. Since its establishment IG investigative activities have compiled an impressive seventy percent conviction rate and generated over $100 million in recoveries, fines, penalties, and restitutions. All other DoD Investigative organizations have compiled a total of over $185 million in recoveries, fines, penalties, and restitutions during the same time period. In addition, last year the IG began an aggressive program of covert operations to uncover fraud and theft against DoD. This program is starting to pay dividends by uncovering instances of bribery, kickbacks, mail fraud, wire fraud, as well as an attempt to secure an illegal transfer of weapons.

The Assistant Inspector General for Criminal Investigations Policy and Oversight is responsible for ensuring that effective remedies flow from DoD criminal investigations. This "remedies" approach is not restricted to criminal remedies; it also emphasizes civil, administrative, and contractual remedies. Our record on suspensions and debarments of contractors has improved from 70 suspensions and debarments in 1981 to 885 in 1986.

Implementation of Packard Commission Recommendations and DoD Reorganization

The recommendations of the President's Commission on Defense Management provide us with an opportunity to make even greater strides in management improvement throughout the Department of Defense. In many respects the Commission supported and built upon our initiatives of the past five years. Its recommendations provide us with a useful guide for continuing our progress. In addition to the identification of possible management improvements, the commission's work has been extremely helpful in galvanizing Executive Branch, congressional, and public support for their implementation.

We carefully examined the commission's reports and worked closely with the National Security Council in developing National Security Decision Directive (NSDD 219) which provided Presidential direction on implementation. NSDD 219 approves virtually all of the major features of the commission's recommendations. Following issuance of NSDD 219, we formed an implementation group and developed a plan of action which has been carried out under the personal guidance and direction of the Deputy Secretary of Defense. This implementation group identified 18 major action items. We are moving ahead on all of them. Significant initiatives include: establishment of a Joint Requirements and Management Board (JRMB), which will play a major decision-making role in the management of major acquisition programs; establishment of an Under Secretary of Defense for Acquisition to oversee all acquisition matters within the Department; and the establishment of Senior Acquisition Executives in each of the Military Departments to oversee the major acquisition activities of their respective Services.

In most cases, implementation of the commission's recommendations is being carried out within the Department. In others, authorizing legislation is required. Some of the required legislation has already passed, such as establishing an Under Secretary of Defense for Acquisition, establishing a Vice Chairman of the Joint Chiefs of Staff. A few cases remain where legislative action will be required.

The recent passage of the Goldwater-Nichols DoD Reorganization Act complements the recommendations of the Packard Commission. We are working to ensure that its provisions are incorporated into the Department's structure, policies, and procedures as rapidly and effectively as possible. Implementation actions have been assigned to lead officials, who are responsible to the Deputy Secretary and me for accomplishment, and their progress is monitored through periodic reports and oversight meetings.

Conclusion:

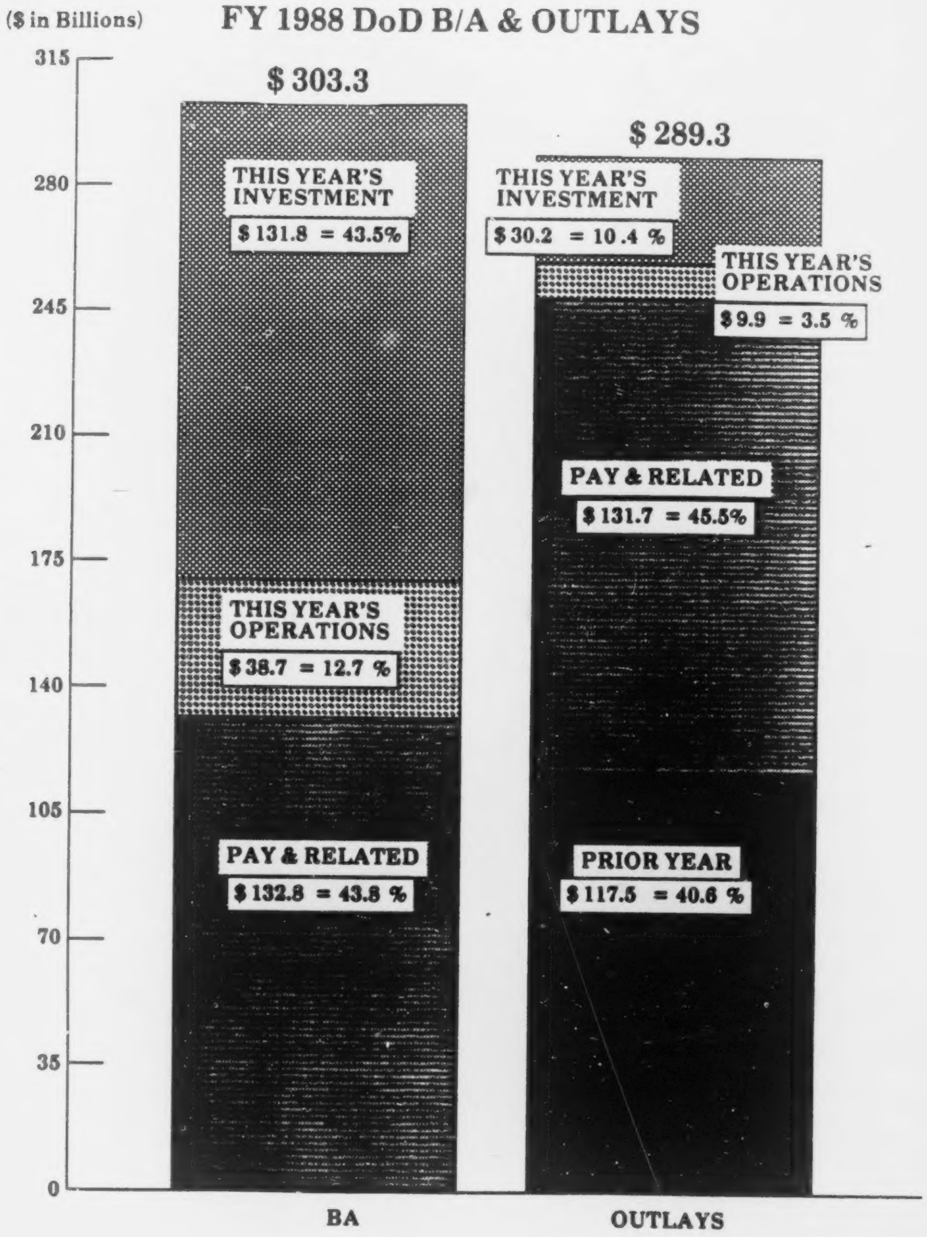
In this period of constrained resources, the Department of Defense has made significant progress in achieving revitalization of our military forces through increasingly efficient and economic procedures. Still, we must maintain the accomplishments to date and strive to reach our goals. We cannot do this without the support of the Congress and the necessary financial resources.

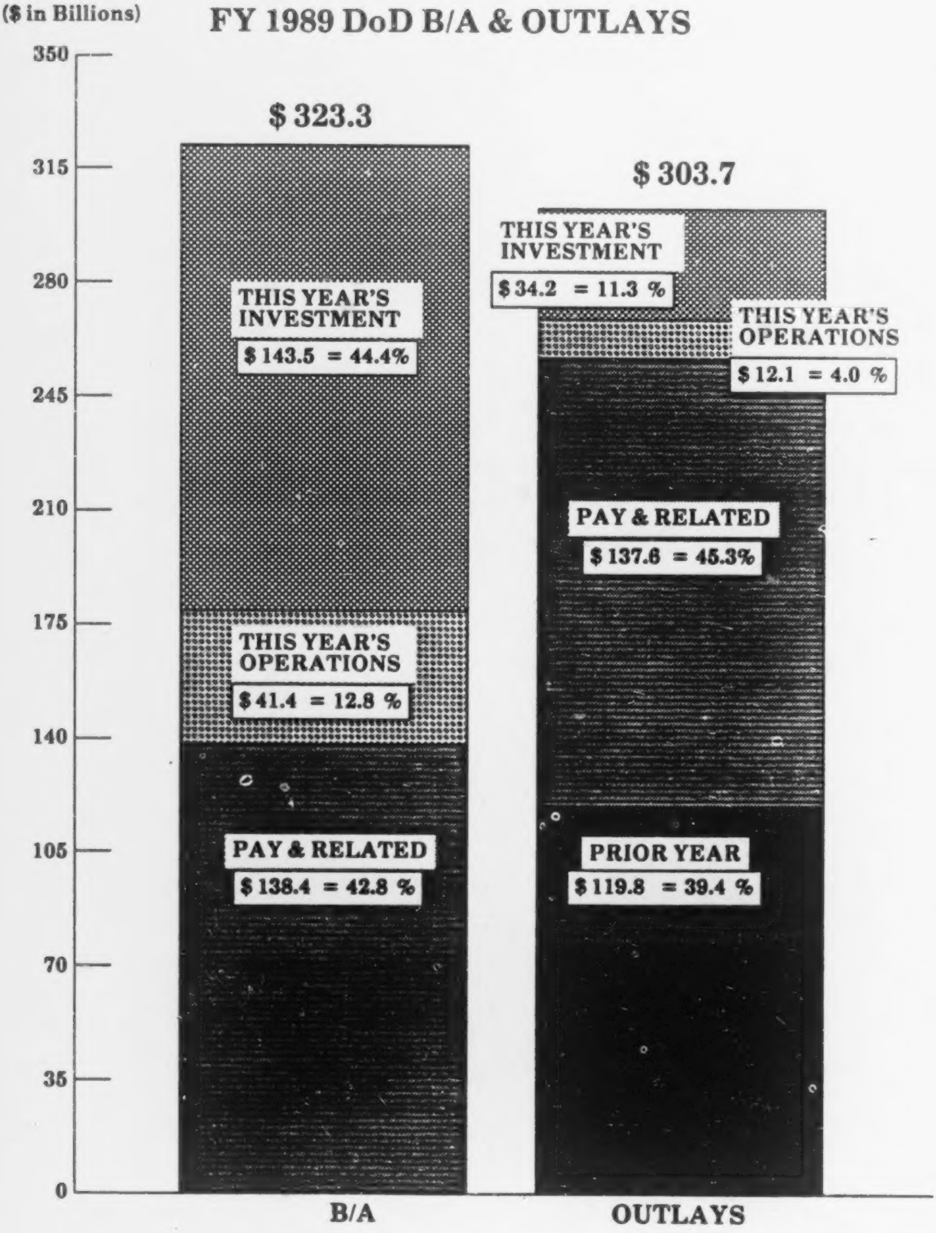
In December, I announced the Administration's intentions of submitting a request for a $2.8 billion FY 1987 supplemental appropriation to cover "must pay" and critical program requirements, to fulfull congressional priorities, and to fund necessary SDI efforts. Reflected in the FY 1987 column of the President's FY 1988/FY 1989 budget, this supplemental funding would, if approved by the Congress, leave the FY 1987 defense budget at zero real growth, or the level specified in the FY 1987 Budget Resolution. The critical nature of the programs for which additional funding has been requested require that at least that level of funding be provided.

Approval of this FY 1987 supplemental request and the FY 1988/FY 1989 program I have presented here today will meet our national security requirements. The defense program is an integral part of the President's budget that has been carefully structured to meet the fiscal targets established by the Gramm-Rudman-Hollings legislation. I urge your careful and serious consideration of our budget request. Enacting a sound, two-year program for national defense will constitute a major step forward in achieving our national security goals.

FY 1988/FY 1989 DoD BUDGET
BUDGET AUTHORITY BY MILITARY COMPONENT
(Current $ Billions)

	FY 1987		FY 1988		FY 1989	
	Dollars	Share	Dollars	Share	Dollars	Share
ARMY	74.5	26.4%	80.1	26.4%	84.8	26.2%
NAVY/ MARINE CORPS	95.3	33.8%	102.3	33.7%	108.7	33.6%
AIR FORCE	93.8	33.3%	100.4	33.1%	107.2	33.2%
DEFENSE AGENCIES/ DEFENSE WIDE	18.1	6.4%	20.5	6.8%	22.6	7.0%
TOTAL	**281.7**		**303.3**		**323.3**	

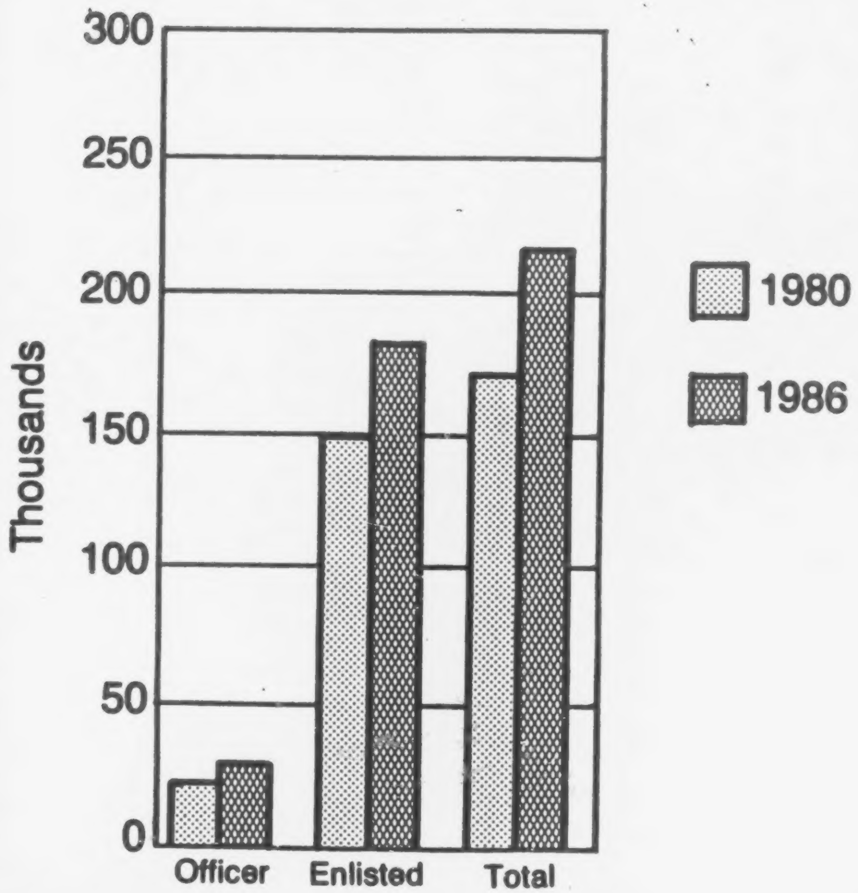

FY 1988 DoD B/A & OUTLAYS


($ in Billions)
FY 1989 DoD B/A & OUTLAYS
350
315
280
245
210
175
140
105
70
35
0
$ 323.3
THIS YEAR'S INVESTMENT
$ 143.5 = 44.4%
THIS YEAR'S OPERATIONS
$ 41.4 = 12.8 %
PAY & RELATED
$ 138.4 = 42.8 %
$ 303.7
THIS YEAR'S INVESTMENT
$ 34.2 = 11.3 %
THIS YEAR'S OPERATIONS
$ 12.1 = 4.0 %
PAY & RELATED
$ 137.6 = 45.3%
PRIOR YEAR
$ 119.8 = 39.4 %
B/A
OUTLAYS

FY 1988/FY 1989 DoD BUDGET
Military Personnel Indicators

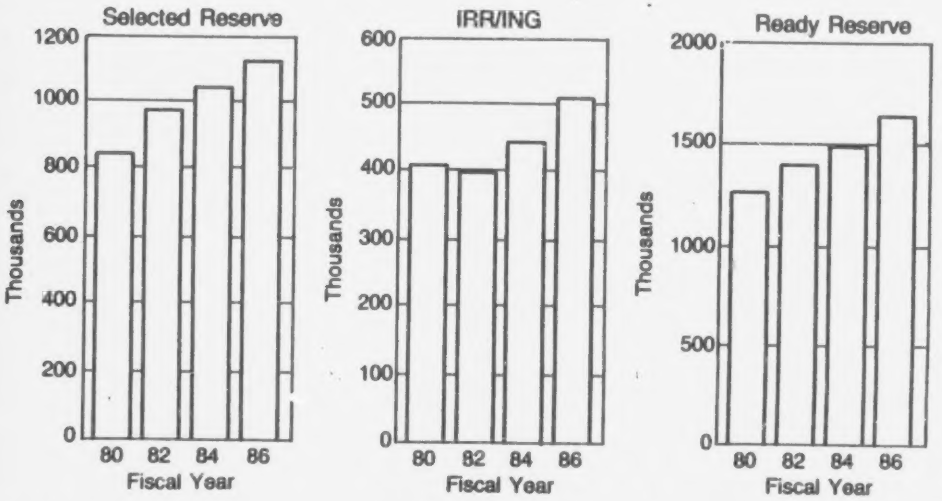
	1980	1982	1985	1986
Recruiting Quality				
High School Graduates	68%	86%	93%	92%
Mental Categories I thru III	69%	87%	93%	96%
Retention				
Reenlistments - All Regulars	55%	68%	64%	65%
First Term Reenlistments	38%	53%	48%	49%
Career Reenlistments	70%	85%	84%	84%

WOMEN IN THE MILITARY
(Thousands)



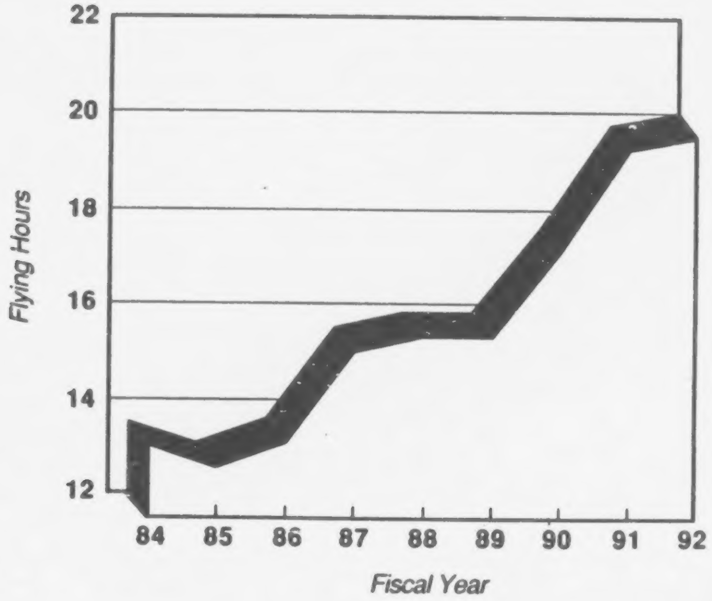
RESERVE COMPONENT MANPOWER GROWTH

(Thousands)



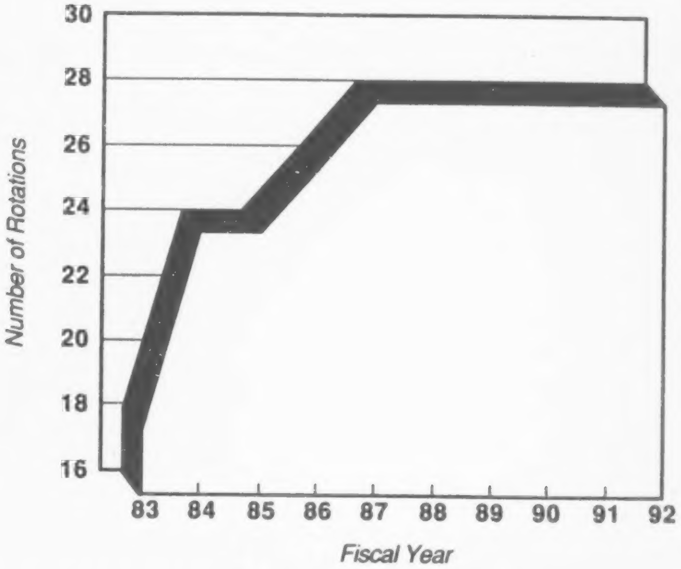
MONTHLY FLYING HOURS PER CREW

(Active Army Forces)



BATTALION ROTATIONS THROUGH THE NATIONAL TRAINING CENTER

(Active and Reserve Army Forces)



LAND FORCES MODERNIZATION

	On Hand		Cum FY 1987 on Hand/		
	FY 1980	FY 1986	Pipeline	FY 1988	FY 1989
Close Combat:					
M-1 Tanks	34	3,539	5,753	600	600
Bradley Fighting Vehicles	0	2,555	4,351	616	618
Helicopters:					
AH-64 Apache	0	165	526	67	-
UH-60 Blackhawk	0	740	859	61	72
Missiles:					
Patriot	0	1,038	1,790	715	815
Stinger	0	11,836	26,763	7,692	8,115
TOW-2	0	49,741	94,661	12,096	11,304
MLRS	0	80,856	260,322	72,000	36,000

NAVAL FORCES MODERNIZATION

	On Hand		Cum FY 1987 on Hand/		
	FY 1980	FY 1986	Pipeline	FY 1988	FY 1989
SHIPS:					
TRIDENT	0	8	14	1	1
SSN 688 Submarine	10	34	56	3	2
CG-47 Cruiser	0	5	22	2	2
SSN-21	0	0	0	0	1
DDG-51 Destroyer	0	0	3	3	3
AIRCRAFT:					
CH-53/MH-53E	0	75	113	14	14
SH-60B/F	0	63	129	24	24

NAVAL FORCES MODERNIZATION

	On Hand		Cum FY 1987 on Hand/		
	FY 1980	FY 1986	Pipeline	FY 1988	FY 1989
MISSILES/WEAPONS:					
Tomahawk	0	350	991	475	510
Harpoon	609	1,903	2,573	124	138
MK-48 ADCAP	0	0	197	100	350
MK-50	0	0	39	153	224
TRIDENT II	0	0	21	66	66

TACTICAL AIR FORCES MODERNIZATION

	On Hand		Cum FY 1987 on Hand/		
	FY 1980	FY 1986	Pipeline	FY 1988	FY 1989
COMBAT AIRCRAFT					
F-14	264	455	512	12	12
F-15	501	749	877	42	42
F-16	143	972	1,468	180	180
F/A-18	2	323	567	84	72
AV-8B	0	59	174	32	32
MOBILITY AIRCRAFT					
C-17	0	0	0	2	4

TACTICAL AIR FORCES MODERNIZATION

	On Hand		Cum FY 1987 on Hand/		
	FY 1980	FY 1986	Pipeline	FY 1988	FY 1989
MISSILES:					
Sparrow	10,428	13,411	19,157	558	-
Sidewinder	16,127	23,008	26,764	1,244	760
IIR Maverick	0	942	10,368	2,701	2,631
Phoenix	1,789	1,852	3,152	430	560
AMRAAM	0	0	180	630	1,800

MAJOR FY1988-FY1989 RDT&E PROGRAMS

($ in Millions)

	Enacted FY 1987	FY 1988	FY 1989
Strategic Defense Initiative	3,243	5,221	6,282
PEACEKEEPER	279	49	39
PEACEKEEPER FOLLOW-ON BASING	116	593	1,248
Small ICBM (Incl. Basing)	1,153	2,233	2,174
National Aerospace Plane	110	241	310
LHX Helicopter & Engine	143	408	616
Forward Area Air Defense	185	309	385
V-22 Tilt Rotor Aircraft	423	466	307
SSN-21 Attack Submarine/SUBACS	526	556	588
Advanced Tactical Fighter	249	537	703

MAJOR FY1988-FY1989 MILITARY CONSTRUCTION PROGRAMS

($ in Millions)

	FY 1987	**FY 1988**	**FY 1989**
Light Infantry Divisions, Fort Drum, NY	**262**	**231**	**214**
Light Infantry Division, Alaska	**73**	**99**	**83**
Strategic Defense Initiative	**10**	**125**	**18**
Navy Strategic Homeporting	**97**	**273**	**197**
NATO Infrastructure	**232**	**396**	**412**
TRIDENT Basing	**168**	**131**	**52**
PEACEKEEPER Rail Garrison Basing	**-**	**4**	**58**
Guard and Reserve Construction	**480**	**579**	**522**
Base Closure	**-**	**45**	**48**

Major Equipment Procured for Guard/Reserve

	FY 1987	FY 1988	FY 1989
Army			
UH-60 Blackhawk Helicopters	5	3	4
Bradley Fighting Vehicles	-	9	16
M119 Howitzer	-	54	36
High Mobility Multipurpose Wheeled Vehicles (HMMWV)	2,020	52	372
5 Ton Trucks	-	738	1,840
Navy			
UH-60 Blackhawk Helicopters	-	3	3
5.56mm Carbine	-	278	836
Air Force			
Flightline Tow Tractors	58	10	34
Trucks	720	781	497
Runway Cleaners	35	83	61

ACQUISITION IMPROVEMENTS

- **Cost Growth for Major Weapon Systems:**
  - end of CY 1980 14%
  - end of CY 1985 <1%
- **Multiyear Procurements:**
  - FY 1982-FY 1987:
    - 46 multiyear contracts approved;
    - $7.7 billion in projected savings.
  - FY 1988/FY 1989:
    - 9 multiyear programs requested;
    - $1.0 billion in anticipated savings.
- **Increased Use of Competitive Contracts:**
  - FY 1981: 40 % of all contracts awarded competitively
  - FY 1986: 79 % of all contracts awarded competitively
- **Spare Parts Acquisition Initiatives:**
  - Savings of $3.8 billion FY 1984 - FY 1986.

DOD EFFORTS TO CURB WASTE, FRAUD AND ABUSE

CONTRACT AUDITS:	
• Estimated savings	$9.0 billion
INTERNAL AUDIT OF DOD ACTIVITIES:	
• DOD, IG estimated savings (since FY 1982, 700 reports)	$4.8 billion
INVESTIGATIVE ACTIVITIES:	
• Recoveries, restitutions, fines, and penalties	$100 million

FY 1987 PERSONNEL, READINESS, AND CRITICAL PROGRAMS SUPPLEMENTAL

($ in Millions)

"MUST PAY" BILLS and READINESS	**1,284**
Fully Funded 3 Percent Pay Raise	100
Overseas Station Allowance	342
CHAMPUS	340
Training/Related Support	262
Ammunition	240
CONGRESSIONAL PRIORITIES	**1,010**
Special Operations Forces (SOF)	330
Chemical Demilitarization	500
Operational Test & Evaluation	120
NATO Initiatives	60
STRATEGIC DEFENSE INITIATIVE	**500**
TOTAL BUDGET AUTHORITY	**2,794**

Senator GORE. Mr. Chairman, on that graph, could I briefly clarify that?

It looks like a positive number. Is your text different from that? You were talking about negative growth. That appears to be less than 1 percent positive growth.

Secretary WEINBERGER. That is less than 1 percent.

Senator GORE. But not minus 1 percent?

Secretary WEINBERGER. Yes, it is minus 1 percent, minus 1 percent for the 84 major weapons systems per year. Now they're costing less than they did the prior year.

Senator GORE.Thank you.

Secretary WEINBERGER. Here are the efforts we have made, which we believe are largely successful, to curb waste, fraud and abuse. These savings are from the contract audits, our own contract audits of about $9 billion; then with the Inspector General and the internal audits of our own activities, about $4.8 billion.

Just in recoveries and restitutions, fines and penalties we have initiated, some $100 million has been saved. All of these are evidence of the care and the proper attention that we give to assuring you and the American people that we are getting the most that we possibly can from each dollar.

Again, this should be said in the perspective of the size of the Department. Mr. Chairman, we sign, as you know, 250,000 contracts every single day. That means if a small percentage of errors is made, it is still more than we would like.

The size of the Department is no excuse. The size of the Department is mentioned to keep in proper perspective the value of the savings that have been obtained by the internal audits and the controls that we have imposed.

Finally, the supplemental that is before you, that was before you in January, requests $2.8 billion. Of that, $1.2 billion is so-called must pay bills—things that we have to do that were not fully funded in fiscal year 1987, also additional readiness items, and then the priorities that Congress indicated are of great importance, to the extent of $1 billion of the $2.7 billion.

There are $500 million for strategic defense, to enable us to do a number of necessary things as we progress rapidly in that program—more rapidly than we thought possibly, particularly to get us into the heavy lift area.

This $2.8 billion may sound familiar. It is the difference between what you authorized and what the Appropriations Committees appropriated. So it is not an unreasonable amount, and we hope this committee again will look with favor on that amount for a supplement for 1987.

As I said, there are many other items we could mention, but I prefer to stop and go to your questions. First, Admiral Crowe has some points to propound.

Chairman NUNN. Thank you, Mr. Secretary.

Admiral Crowe.

STATEMENT OF ADM. WILLIAM J. CROWE, JR., USN, CHAIRMAN OF THE JOINT CHIEFS OF STAFF

Admiral CROWE. Mr. Chairman, I submitted my statement for the record. I do not think it is necessary for me to summarize it.

Chairman NUNN. Thank you very much, Admiral. And you have given that statement, I think, over on the House side.

Admiral CROWE. Yes, sir.

[The prepared statement of Admiral Crowe follows:]

PREPARED STATEMENT OF ADM. WILLIAM J. CROWE, JR., USN, CHAIRMAN OF THE JOINT CHIEFS OF STAFF

INTRODUCTION

Mr. Chairman and members of the Committee. I welcome the opportunity to appear before you today and report on the overall condition of our military establishment.

A considerable amount of water has passed under the legislative bridge since my testimony on the FY 1987 budget. In that budget the Congress chose to cut the President's defense request dramatically and for the second year in a row to legislate negative growth in our appropriations. Throughout this process I heard a great deal about the "fiscal" and "political" realities that dictated such action, but all too little about the "military" realities we face. This year I believe it is imperative to go back to fundamentals, i.e., to review the strategic landscape and to consider the "military" realities carefully before deciding what resources will be committed to our defense over the next two years. In an attempt to aid this process, I will this morning address four subjects:

- Linkages between strategy, force structure, hardware and people;
- The East-West balance, including capabilities of U.S. and allied forces in comparison with our potential adversaries;
- The President's budget; and
- A brief look ahead.

LINKAGES BETWEEN STRATEGY AND THE MILITARY

To begin, the role of U.S. military forces is shaped by national security policies which have remained essentially unchanged since the late 1940's:

- Preserve the independence, freedom of action, and territorial integrity of the United States;
- Support U.S. and allied vital interests abroad; and
- Encourage an international order in which our freedoms and democratic institutions can prosper.

These policies genuinely describe what our strength, especially our military potential, can do for us in an often violent and turbulent world. The main point to keep in mind is that our military forces contribute to achieving these objectives every day not just when the nation is under direct attack.

Defense Policies

Our military posture is further shaped by some basic themes which have evolved in the post World War II era. We strive to:

- Deter wars rather than fight them. This strategy of deterrence aims to make war or the threat of war too risky for any hostile power or combination of powers to contemplate.
- Optimize our collective security arrangements and forward defense posture through combined defense planning with allies in Europe and Asia and through vigorous security assistance programs. At the heart of this policy is the principle that the capabilities of the whole will be greater than the sum of its parts. In turn, our coalitions present potential adversaries with formidable political, psychological and ideological challenges--as well as enhanced military power.
- Maintain robust central reserves supported by global mobility. Many of our treaty commitments are bolstered primarily by our power projection forces. Indeed, many strategists in and out of the Pentagon now recognize that real-world deterrence depends upon our inherent capability to "get there firstest with the mostest," deal effectively with the threat at hand, and withdraw just as quickly from the scene of action.
- Pursue a vigorous arms reduction policy which seeks equitable, effective and verifiable arms agreements

with potential adversaries. For more than fifteen years, we have been trying to engage the Soviets in an agreement which will sharply reduce offensive nuclear arms.

Military Strategy

Historically, the United States has attempted in peacetime to maintain sufficient capability to blunt initial attacks on our own interests and to form a nucleus around which we can expand for major hostilities. In practical terms, this means that we do not attempt to match potential adversaries weapon for weapon and man for man, but to develop quality forces and "edges" (marginal superiorities) that will deter our enemies by keeping their level of uncertainty high or allow Washington to manage crises in a manner that will prevent them from escalating or getting out of hand. In essence, we are betting that in major war we can expand our peacetime forces and bring our total resources (technological, industrial, personnel, economic, political) to bear so that we will ultimately prevail. This is an appropriate policy for a democracy but it also leaves little room day-to-day for miscalculation. More importantly it means that since we operate on the margin seemingly small reductions in our peacetime capability may result in large increases in the risk. It is imperative that the nation understand this fundamental relationship.

Over the course of time, we have followed a number of principles in determining how to build and deploy our forces. For instance, we attempt to:

- Plan in a total force context--i.e., active and reserve forces of the U.S. and its allies, host nation support in forward areas, various types of combat service support from civilian sectors, and allied military enhancements underwritten by our security assistance program;

- Exploit the deterrent value of nuclear forces while avoiding a nuclear war;

- Defend forces in-being against an initial attack at a time and place of the enemy's choosing;

- Emphasize our qualitative advantages--technical, personnel and organizational--to defeat an adversary who will normally outnumber us on the field of battle;

- Expand our forces rapidly in the event of major crises and especially in all-out war; and
- End any conflict on terms favorable to the U.S. and its allies.

Given our built-in pluralism and constrained resources, it is very difficult to bring all these policies and principles together even when you are not worried about static or sagging expenditures for defense.

THE EAST-WEST BALANCE

Cutting across the strategic landscape--and in many respects dominating it--is the East-West balance. In my view, a number of factors are imperative to consider: geography, economic defense potential, allied contributions, and military trends over time.

Geography

Geographically, the Soviet Union has a very large border and airspace to defend--much larger than ours--and a disadvantage in its limited access to the open oceans and non-European friends. For our part, the United States is much more dependent upon its use of international airways and oceans, not only in its daily commerce but also in cementing its far-flung alliances. Thus, geography tends to provide a mixed picture of inherent strengths and weaknesses.

Economics

On the other hand, economic defense potential clearly favors the U.S. and its allies as compared with the Warsaw Pact. Today, for example, our gross national product is nearly twice that of the Soviet Union. Similarly, NATO as a whole continues to outpace the Warsaw Pact by a factor of two-to-one.

Today, we also see the Soviet Union struggling to overcome weaknesses endemic to its system: the difficulties of running a "command" economy with no measure of profit and loss, depletion of their European mineral base, challenges of developing alternative resources in Siberia, lack of discipline among workers, management shortcomings revealed in the Chernobyl disaster, and a host of problems keeping political and economic relations with Eastern Europe on an even keel.

Thus, by general measures of economic strength, the U.S. and its allies are considerably stronger than the Soviet Union and its allies. But how the money is spent also is a critical factor. Like Axis Powers in the 1930's, the Kremlin continues to stress armaments at the expense of all other sectors of the economy.

Allied Contributions

With respect to allied contributions, Western Europe routinely accounts for about 30% of all military expenditures by NATO members and provides about 60% of the active military personnel, as well as 60% of the ground and air combat units. In Northeast Asia, South Korea and Japan also field the bulk of deterrent forces numbering 600,000 and 250,000 military personnel respectively. By comparison, we normally have about 130,000 military personnel stationed, ashore and afloat, in the Western Pacific.

On the other side of this coin, few of our allies have a nuclear deterrent of their own and, in the postwar years, many stressed ground and air capability rather than naval strength in their defense planning. Thus, in the overall scheme of things, it is necessary for the United States to place a high priority on its strategic nuclear umbrella, global maritime superiority and strategic mobility forces.

For its part, Eastern Europe normally accounts for about 15% of all military expenditures by the Warsaw Pact. The USSR shoulders the other 85% and, in turn, dominates the Pact's High Command, military strategy, force structure, and hardware. In this situation, it is relatively easy for the Soviets to achieve economies of scale in military production and standardization of equipment and tactics among Warsaw Pact forces. But they can never be certain that the forces or peoples of Eastern Europe will rally around a call from Moscow. I suspect that this one uncertainty weighs most heavily on the minds of the Russian leaders.

On balance, our allies shoulder a much greater defense burden in Europe and Asia than do allies of the USSR. Of course, we would prefer that many of them do even more and we strongly encourage them at every opportunity. Nevertheless their contributions are most significant and count heavily as a factor in our favor.

Trends in the Military Balance

Still overall trends in the military balance give us little cause for optimism and strongly call for greater U.S. effort.

- Our strategic nuclear deterrent is neither as secure nor as dominant as it once was. Particularly disturbing is the Soviet emphasis on strategic defense --the steady hardening of command and control facilities, a very robust defense against air-breathing threats, and an ABM system with potentially nation-wide coverage. Concurrently, we see their large ICBM force becoming more hardened and mobile, their submarines more quiet, and their bombers more capable of intercontinental missions.

- Soviet conventional capabilities on and around the Eurasian Continent are much greater than they were two decades ago. In these forward areas, we have always been considerably outnumbered by Soviet ground and air forces. Now we are also seeing our qualitative edge erode.

- Soviet surrogates in Asia, Africa, and Central America are more heavily armed and troublesome than they once were. In turn, they are much more inclined to support terrorism, subversion, and greater forms of aggression against their neighbors and the West in general.

While the likelihood of a major Soviet assault on Western Europe is perhaps remote, the coercive threat of Soviet military power will loom over the Eurasian Continent for many years to come. Moreover, the Soviet Government has never departed from policies holding that its allies and surrogates in the Third World must remain strategically subservient to Moscow and that the rest of the world is an open field for destabilizing actions.

Further, we see no slackening in tomorrow's military investments. By their own admission, such expenditures will continue on an upward slope--just as they have over the last four decades. All of this puts an enormous burden on the Soviet economy, but I see no sign that the system cannot sustain such an effort.

In my view, these and other indicators strongly suggest that we must prepare ourselves for a marathon, not a short-term sprint, in the military competition with the USSR. That thought must be a cornerstone of any successful U.S. strategy.

Yet, this is one of the most difficult ideas to get across to the U.S. Congress and the American people. Frankly, our history would argue that where military preparedness is concerned, we are notoriously short-sighted.

Net Assessment of Military Capabilities

Moving on, I recognize that this Committee is interested in more than broad trends in the East-West balance. You want to know more specifically how the capability of U.S. armed forces and those of our allies compare with those of the Soviet Union and its allies.

Strategic Forces

First, strategic forces. There is no question that in the static sense the Soviets have reached strategic parity or better. This is one of the major shifts in the balance between the two superpowers wrought in recent years. They have clear superiority in ICBM's and overall megatonnage. Hardened communications (C3) and passive defense measures give them a survivability U.S. forces do not yet have. Likewise, the Soviets are further along in shifting to mobile missiles and are posturing themselves for a possible ABM breakout.

On the other hand, the U.S. ballistic missile submarine force is less vulnerable than the Soviets and we have a more effective bomber force still capable of penetrating the USSR. Moreover, the President's strategic modernization program if fully implemented--MX, D-5, B-1, ATB, C3 initiatives and Small ICBM--will prepare us for the long haul, keep pace with Soviet improvements offensively, and correct our more glaring deficiencies.

Thus all things considered, I am relatively confident that strategic forces and programs which are being proposed will deter a direct nuclear attack on the U.S. and our allies. But I must reemphasize, for that judgment to continue to be solid, it is imperative to stay the course with our strategic modernization programs.

Maritime

The maritime picture is the second major shift in Soviet strategic policy.

Throughout the immediate postwar period the U.S. enjoyed undisputed mastery of the seas, but the Kremlin was not easily discouraged. By the late 1970's the Russian Navy had made tremendous inroads into our margin of superiority and the trends were even more alarming. We have now reversed these curves--particularly in overall shipbuilding--but the Soviets are on the high seas to stay.

Our main concern is a "blue water" Russian fleet pushing its area of operations further and further from the homeland. By stretching our forces and tactics to the limit and working harder to understand Soviet naval thinking, we still hold a slim margin of superiority on the high seas. But whether that margin holds up will depend, in part, on our reacting quickly to indications and warnings and our willingness to match their forces and efforts. As an example, we must take full advantage of the superiority of our nuclear attack submarines and carry the battle to the Soviets in the forward areas. Without such pressure, we could expect to see a major breakout by Soviet naval units and formations on to the sea lines of communications.

While we still enjoy an advantage in seaborne air, amphibious forces, and underway replenishment, and in support we receive from allied navies, a significant challenge on the high seas is growing out of Soviet success in:

- Deploying very advanced anti-ship missiles which are constantly improving;
- Increasing their over-the-horizon targeting capability by exploiting space;
- Improving submarine propulsion (speed and quietness) and metallurgy (depth); and
- Steadily improving their ASW capabilities.

In essence, we cannot afford to relinquish naval superiority to the Soviets. To do so would jeopardize our coalitions, economic and trade dependencies (which are now necessary in war as well as peace), and capabilities to project our power overseas. Our ability to prevail at sea is a cornerstone of our overall strategy.

NATO/Warsaw Pact

Turning to the NATO/Warsaw Pact balance, major trends are generally adverse to NATO. I have already spoken to the implications of strategic parity. Moreover, we have essentially no deterrent to chemical warfare in NATO or elsewhere--this is a crucial weakness when confronting the USSR. Reinforcing this trend has been the extensive Soviet modernization, expansion, and reorganization of their theater forces.

Further, the Soviets are better able than NATO to conduct theater nuclear war in Europe. Today they possess a pronounced superiority in numbers of intermediate nuclear forces, both long- and short-range. Similarly, our one-time lead in battlefield nuclear systems has disappeared.

In light of these developments, conventional forces assume an added significance. The Soviets have always had imposing ground forces but the gap in numbers of modern weapons continues to widen. In ground equipment they lead the U.S. and also NATO in virtually every category by ratios ranging from 1.5 to 1 to 6 to 1. Moreover, we have lost our lead in surface-to-air missiles and anti-armor capability. Similarly, NATO's qualitative edge in ground systems may have eroded somewhat. On the other hand, NATO ground forces on the Central front have made progress in the use of combined arms and in the fielding of modern equipment. Similarly, the sustainability of U.S. forces has improved markedly over the last few years. Unfortunately, the stocks of certain munitions among the allies have not improved appreciably and could be exhausted too quickly.

On the plus side, the NATO qualitative edge in tactical aviation while somewhat diminished has not disappeared. It is not clear, however, what this will mean against the numerical advantages of the Soviet air forces (offensive and defensive) which run in the neighborhood of 2.0 to 1. I have complete confidence that the quality of our pilots and weapon systems would permit us to exact high exchange ratios but overcoming the impressive numbers of Russian medium-range bombers, fighter bombers, interceptors, and surface-to-air weapon systems will be a sporty course. The outcome is difficult to predict.

We will, of course, have the support of our naval forces in Europe and, as I mentioned earlier, the Soviets have yet to surpass our lead.

To put all of this into perspective, NATO capabilities are still deterring a war in Europe. Surely, the prospect of having to fight 16 nations at once remains a sobering one for the Kremlin.

But if, for some reason, war breaks out, maintaining a successful forward defense will be a "near thing." Barring a major change in the dynamics of the competition, NATO can no longer hope to offset Pact numbers merely by improving the quality of its equipment or relying on the dedication of people defending their own territory.

In the final analysis the military balance in Europe is not encouraging and needs a great deal of tending--politically as well as militarily.

East Asia

Until the late 1960's Moscow paid little attention to the defense of its eastern provinces and its strength in the Western Pacific. With the PRC's breakaway from the Soviet orbit and the burgeoning affluence of East Asia, the Kremlin began to build up its forces in the region--not by drawing down in Western Europe, but by commissioning new units and increasing defense production to help them.

Overall, the balance on the Chinese border favors the Russians in every way except manpower and as yet the Chinese have been unable to turn things around--preferring to put their current priorities elsewhere. The one exception is Chinese nuclear capability which provides "minimal deterrence" of a sort.

Nevertheless, China looms large in the Kremlin's calculations--witness the gradual buildup from 20 to 50 Soviet divisions on the Chinese border.

On the Korean Peninsula, Pyongyang has made a determined effort to outstrip the South's forces. Besides this general buildup several recent initiatives are particularly worrisome--the relocation of a number of 2nd echelon divisions close to the DMZ and recent emphasis on improving special operations forces both quantitatively and qualitatively. However, as long as North Korea is not directly assisted by the Soviet Union, United States augmentation--especially our air power--should make the difference in deterring or, if necessary, defeating the North. The fact remains, however, the Peninsula is an unstable focal point with a significant threat of major war lingering on the horizon.

In the context of global hostilities, the East Asian area presents both opportunities and challenges to U.S. planners. We have significant leverage against Soviet naval and air forces in the region which both reduces the threat to our sea lines of communication, and constrains the Kremlin's ability to accomplish its strategic goals in the Far East.

Further, our political relationships generally work in our favor. It is clear that PRC forces tie down substantial Soviet ground and air deployments in the region and that Beijing puts considerable stock in its U.S. tie. In a similar vein, Japan is a pillar of U.S. strategy in the Pacific. Without Japanese cooperation, it would be difficult to bottle up the Russian fleet, augment South Korea, and find sufficient bases to support continuing operations against the Soviets. Likewise, the health of the U.S.-Philippine relationship, politically and militarily, impacts heavily on the regional balance. Obviously, the firmness of U.S. alliances will rest to a great degree on our ability to successfully confront the Soviets in the region and, in the event of war, to keep open our sea lines of communication to the Western Pacific.

While predicting what the Soviets will do is a hazardous business, I am inclined to believe that any U.S.-Soviet confrontation in the Pacific will take its lead from events in Western Europe or elsewhere. This means that we would most likely be fighting a containing action as well as supporting our Pacific allies. While the prospects for achieving our objectives in Asia are encouraging, there is clearly a great deal to be done before we can confront the future with confidence.

Power Projection

Turning to power projection, the Soviets have long been able to project military power successfully adjacent to their borders. Basically the Russians' continental location and large resource base gives them an asymmetrical advantage vis-a-vis the U.S. when applying force in Western Europe and along their immediate periphery--witness events in Afghanistan.

In the last decade the Kremlin has increased its ability to project forces, employing cargo aircraft, naval units and non-military shipping, although Washington continues to enjoy a distinct advantage where long range lift is concerned. However, the Soviets have developed a style of power projection that avoids confrontation with U.S. units, e.g., through the use of Cuban proxies, arms sales to clients, covert operations, and intervention in areas where U.S. action is not anticipated.

In general, we still retain a distinct advantage over the Soviets in strategic lift--airlift, sealift, and capabilities to project force over long ranges. Southwest Asia, however, continues to place a heavy stress on our power projection capabilities. Gradually, we are overcoming the challenges--distance, reception facilities, and the harsh environment--with innovative planning and exercises. But more capabilities are required in a number of areas to fully meet these challenges.

Aside from Southwest Asia, I am confident that in a direct confrontation, U.S. forces, because of our lift advantages, could prevail over Soviet troops operating far from their homeland. The only question is whether we may move soon enough in response to a military challenge.

Special Operations Forces

Because they so often operate behind the scenes, straight one-on-one comparisons of our Special Operations Forces and Soviet "SPETSNAZ" are difficult to derive and sensitive to portray in an open fashion. Nevertheless, several points are worth noting. Both sides depend upon such forces to complement conventional forces in general war planning. But the Soviet side tends to use its SPETSNAZ more routinely in low intensity conflict as during the Czechoslovakia invasion of 1968 and in the current Afghanistan campaign. Their capability for covert and clandestine operations also fits into the Kremlin's policy of keeping pressure on the West through state-supported intimidation, terrorism, and subversion--and making sure that no surrogate ever gets out of the Soviet camp. In short, the Brezhnev doctrine and SPETSNAZ go hand in hand.

Against this background, there is no question that our SOF have become very good at the business of counter-terrorism. In 1981, our capability was very limited; now we probably have the best in the world. But this is a rather narrow field and we are still groping to fit our SOF--and other forces--into an overarching strategy to meet the threat of low intensity conflict. Further progress should be possible with more focused organizational arrangements, including the new Special Operations Forces Command, and increased emphasis on procuring the specialized equipment and training for these types of operations.

Overall, I believe we are building a credible and effective capability against state-supported terrorism, subversion, and other forms of indirect aggression against the West. But, a great deal of hard, constructive work still lies ahead in this area.

Net Assessment

In summary, it is clear that the investments made in the last 8 years have materially improved the foregoing net assessment from the U.S. standpoint. It is equally obvious that the picture is a dynamic one, that the Soviets are working diligently to improve their position across the board, and that there are still a number of serious gaps in our own posture. On balance, we still need a number of years' growth before we can face the future with confidence. In particular, I cannot help but be alarmed by the signal which a continuing zero or negative growth defense budget would send to both our allies and potential opponents in Europe. Frankly, such a signal at this time is not justified by the threat, the political climate or the military situation.

THE PRESIDENT'S BUDGET

Against this background, the President is starting anew with the 100th Congress by proposing three percent real growth in defense spending against the FY 87 baseline.

The Joint Chiefs believe that the budget for FY 1988-1989 supports the nation's strategy and will reinstitute modest real fiscal growth so necessary to long-term health. The Chiefs and CINCs participated in the formulation of the budget and while it is by no means risk-free they are satisfied that appropriate compromises and trade-offs have been struck at the resource level which has been set. The budget continues the modernization of the equipment for our forces both nuclear and conventional; includes growth in naval force structure; addresses our more pressing sustainability shortages; provides an appropriate balance between readiness and modernization; preserves the kind of quality manpower which is the backbone of our forces; and, with an eye to our reliance on quality technology, continues to emphasize research and development accounts. Secretary Weinberger's statement has addressed each of these areas in detail. Consequently, I will only mention some of the more significant items.

Military Personnel

As I noted last year, our most precious asset is quality personnel--the cornerstone of our military establishment. This year, the President's budget continues support for adequate levels of compensation accompanied by a modest increase in military pay and additional funding for family housing. This action will sustain a personnel picture which overall remains healthy.

Too often, we are inclined to count people as the intangible factor in the military balance. So I believe it is useful to cite one area where your support has paid extremely high dividends. We are the best in the world at operating and supporting complex weapon systems under night/all-weather conditions. I see this in all of the Services and count it as one of our strongest cards in managing crises and deterring our adversaries. It all flows from the talent, high morale, and competitive spirit of our officer and enlisted ranks.

Strategic Modernization

The Chiefs have consistently made strategic modernization their number one priority. Our TRIAD of strategic nuclear forces is the umbrella under which all our deterrent forces operate and undergirds the security policies of our allies as well. In the face of unrelenting Soviet efforts to modernize their strategic weapons across the board, we have no choice but to refurbish all three legs of the TRIAD. The MX, Small ICBM, Trident, D-5, B-1B, ATB and accompanying C-3 programs are designed to give us an updated deterrent which will see us into the next century.

In a similar vein the JCS support the President's Strategic Defense Initiative which will determine whether an alternative to sole reliance on the threat of nuclear retaliation is feasible. It is both prudent and moral for the United States to explore means for ending the dominance of offensive ballistic missile weaponry.

Concurrently, the JCS strongly applaud efforts by the President to achieve progress in arms reduction negotiations. While I believe there are some encouraging signs, I do not see any immediate breakthrough in the offing or any reason to relax our strategic modernization initiatives. Negotiations are not a substitute for force modernization; rather negotiations and our modernization efforts are mutually reinforcing.

Conventional Force Modernization

It should be obvious from the comparison of U.S.-Soviet forces that we have some pressing needs in our conventional forces which must be corrected if we are to move into the 1990's with confidence. The number one priority is to maintain our qualitative edge on the field of battle and the President's budget takes a positive step in this direction--in both procurement and R&D funding.

While we have made great progress over the last few years, it is also important to stress that we are only mid-stream in the conventional force modernization process. To cite some expected end FY 1987 figures:

- About 25% of the Army's active mechanized battalions and 40% of its tank battalions will be re-equipped with the Bradley Fighting Vehicle and M1;
- From 50% to 65% of our tactical air wings will have received new fighter/bombers;
- Some five out of fifteen carrier battle groups will have AEGIS; and
- About 36% of our submarine force will be operating basic or improved versions of the 688 Class.

More progress will be made as equipment currently in the pipeline reaches our combat forces. But it should be clearly understood that we are stretching out and, in turn, delaying the modernization effort.

As explained in the OMB Budget Summary this is a direct consequence of fiscal austerities and, in some cases, a deliberate decision to buy more modern munitions and fewer platforms. Only in FY 1989 does procurement in general resume an upward slope and that, of course, is contingent upon Congressional approval of the President's two-year budget request. The bottom line is that many of our active and reserve units will remain behind the power curve in quality, particularly as reinforcements for NATO.

Chemical Warfare

Of special note are the requested funds for chemical weaponry. These programs are necessary to offset a serious disadvantage on the battlefield and to counter offensive and defensive asymmetries strongly favoring the Soviet Union. From the perspective of the American fighting man in the field, it is difficult to overemphasize this request.

Special Forces and Low Intensity Conflict

With respect to Special Operations Forces this budget continues to place considerable emphasis on procuring equipment and weaponry. There is increasing recognition of the value of these specially tailored assets in today's world. In turn, there is a new determination to see that not only organizational but equipment deficiencies are corrected and that these forces are brought to an even higher state of readiness. The requested funds for SOF equipment will pay a high return in capabilities desired by both the President and the Congress.

Sustainability

The FY 1988-89 budget proposes to continue the trend of the last few years in improving our sustainability which includes war reserve stockpiles (munitions and spares), transportation capabilities, and industrial surge capacities. We worry about potential "war stoppers" or their impact on the theater nuclear threshold.

In the past four years, funding for ammunition has grown by over 25 percent; spare parts funding has doubled; and ammunition inventories of all Services have improved substantially. In Europe, for instance, ground ammunition tonnage is up 18 percent, and it has almost doubled in the Pacific. Munition deficiencies which plagued us for years are improving steadily, but at the current rate of expenditures, it will be several years before we can near our goals and breathe easier.

We simply must stay the course if we want a genuinely sustainable force as well as a modern and well-trained one. Otherwise we will be spending a great deal for modern equipment with one hand and then reducing its effectiveness with the other.

Budget Overview

The peacetime strategy and defense spending of the United States seek to maintain the cutting edge of our deterrent forces, active and reserve, while counting on our economic and mobilization potential to cope with any clear and present danger to the U.S. and its allies. Everything about this deterrent stance hinges upon the quality of our people, hardware, munitions, and logistic support.

Overall, this budget addresses adverse trends in the overall balance, stresses our qualitative advantages, reduces deterrent risks over time, and avoids the dramatic trade-offs which would distort the force structure as we move into the 1990's. While by no means risk-free, the President's budget is a prudent approach to the problem of maintaining an effective and balanced deterrent across the full spectrum of potential hostilities. As the President's principal military advisor, I wholly support the defense budget for FY 1988 and FY 1989, and I urge the Congress to do likewise.

LOOKING AHEAD

Looking ahead, this may well be a critical year in the national security debate. Recently mandated, across-the-board cuts in funding and officer strength have slowed our progress in achieving force goals; stretched out force modernization; thinned out some of our combat units in hardware or people; left us with still inadequate stocks of modern munitions; and resulted in a growing backlog of equipment and facility maintenance.

Against this background, a considerable amount of reprogramming and fine tuning has managed to avoid either a hollow strategy or a hollow force--but the overall trends remain a matter of serious concern to the JCS and the CINCs. We may be able to live with one or two years on a flat or descending appropriations curve, but we will eventually pay heavily for several years of zero or negative growth. At this point, it is difficult to forecast the specific impacts. But given the Soviets' steady progress and the narrow margins inherent in our defense policies, small reductions in our capabilities could very well provoke a disproportionate change in the risk. Our experience has confirmed that time and again.

If confronted with no real increase in defense spending over the next five years, for example, it is my judgment that our military risks will increase throughout this decade (possibly sharply) and into the 1990's. Primarily, this is a function of stretching things out, delaying improvements in a total force context, and living with sustainability problems we should be solving at a steady pace. Frankly, it's a pure function of the U.S. marching-in-place or making heavy trade-offs which will sacrifice some part of our structure while the Soviets move forward in their customary fashion, correcting one military deficiency after another. That's precisely how we can lose our present ability to deter and our already slim edge on the field of battle.

In essence, I would like to see America settle down in the defense debate--start looking at where we will be in the 1990's. What is most needed is a consistent and rational defense policy geared for the long run rather than the peaks and valleys which have characterized so much of our peacetime history. We have a great deal going for us in economic defense potential and in partnerships with other free nations of the world. But we must take the lead and set the pace in this long-term military competition with the USSR. If we fail to meet this challenge--and let the Soviet-controlled forces dominate the field--then we must be prepared to face the consequences of a world starkly different and less hospitable than the one we are living in today.

Chairman NUNN. Well, we will go right into questions then. We appreciate both of you being here, and again I do not want to rush anyone, but we will adhere to the 6 minute rule and that should get us around by close to 4 o'clock.

Mr. Secretary, you informed us of your commitment well in advance and we will certainly accommodate your wishes. If we have to come back at some other date, we will reschedule.

Secretary WEINBERGER. I am always happy to return.

Chairman NUNN. Mr. Secretary, you state in your statement, and again I quote you: "In efforts to meet arbitrary fiscal targets, it often appears as though legitimate program requirements became irrelevant to the review process."

Are you suggesting that the Gramm-Rudman deficit targets are arbitrary fiscal targets which are undermining legitimate national security?

Secretary WEINBERGER. I made the point along that line in connection with the original adoption of the amendment many months ago, Mr. Chairman. It is now the law of the land and obviously we adhere to it.

We have submitted a budget which, as you correctly pointed out, does meet the Gramm-Rudman targets for fiscal year 1988. It is our hope that the Congress will enact the modest request for security improvements that we have submitted and not be beguiled into reducing those again for the third straight year simply because others may claim that the specified targets might not be met in the future.

Chairman NUNN. Well, how do we handle the budget in the second year? I alluded to it in my opening statement that the President's budget, is $20 billion over—some say higher, but let us just use his figures—the target in the second year in the overall context. Now, that is not in defense.

We have got part of that, but not a large part, in the defense area. How do we handle that second year, which you worked so hard on and we worked so hard on to try to get set up, when we obviously are going to be out of kilter in terms of the Gramm-Rudman targets?

Secretary WEINBERGER. The important point to bear in mind, Mr. Chairman, is that the President's plan does meet the Gramm-Rudman targets at the end of the 5-year period covered by this submission; and second, that if this committee and the appropriation committees would enact——

Chairman NUNN. He is just 1 year late getting to the balanced budget.

Secretary WEINBERGER. No; I think at the end of that time he reaches the balance figure required by the amendment. But in addition, he demonstrates a surplus that could be earned that year which could be applied to make up any problems if it did not work out within the specified time.

The important thing, however, Mr. Chairman, is to bear in mind that if the committee enacted both years of the defense budget submission, as it appears before you, then it would be essential for the other areas of the budget to be fitted into that.

It would be the most powerful argument for bringing us to a situation in which we all worked on a 2-year budget, which in turn would add greatly to the stability and to the general management of the whole budget process.

Chairman **Nunn**. Mr. Secretary, we will have to work with you on that one. I would not want this process that we have started to go down the drain because of budget targets. But we will try to avoid that.

STRATEGIC DEFENSE INITIATIVE

Shifting to another subject, on February 8 Secretary Shultz said during an appearance on a morning television show that you were going to say in a BBC TV interview the same day that, as far as any early deployment of Strategic Defense Initiative is concerned, quoting Secretary Shultz, "It is not possible to make any such decision this year or next year."

We were told that that statement was not made by you in your appearance. Could you tell us whether you agree with that statement?

Secretary **Weinberger**. My impression was that I did make the statement that we are not able to decide whether to deploy this year or next year.

We are doing things that will enable us to make a deployment decision far earlier than we thought possible and to bring about, we believe, actual deployment of an effective system on a phased basis far earlier than we thought we could.

But the statements of immediate action—the statement that it was going to be this year or next year, the statement that we were racing to beat the end of the President's term—these statements were totally wrong.

Chairman **Nunn**. So what you are saying now is that we do not have enough research yet to be able to make a deployment decision either this year or next year?

Secretary **Weinberger**. I am saying it now, but I have also said it many times before. The problem was that the people who wrote the headlines did not wait until the end of the speech.

In any event, that is the case. I believe I could point out that in maybe 15 or 20 speeches, which I will be glad either to repeat to you or show you the text. I said nothing differently. But we are now moving rapidly.

We are moving more rapidly than we thought possible, and we want to deploy. We want to deploy as soon as we can. But obviously, we do not want to deploy anything that is not effective or that will not add to the security of the Nation.

Chairman **Nunn**. Senator Warner.

Senator **Warner**. Thank you, Mr. Chairman.

Mr. Secretary, that issue and the second aspect of it, which I will momentarily raise, are really the controlling factor behind the amount of money I think that Congress will authorize and appropriate this year in SDI. So let us address a second aspect of this.

You are dealing now in your response to the chairman with deployment, but I have an understanding that perhaps the President imminently, maybe today or tomorrow, will be making some decision on the timetable by which the administration goes through a series of steps, namely to assess what has been the negotiating record the debates in Congress, on the broad versus the narrow interpretation of the ABM Treaty.

REACHING SDI GOALS

And my first question to you: If we were to proceed on, in other words change, to the broad interpretation now, would that allow us to reach certain goals in SDI on a less costly and earlier basis?

Secretary **Weinberger**. If I understood the beginning of your question, that is to say——

Senator **Warner**. If we were to shift from the narrower, restrictive to the broad, would it be less costly and could we reach certain goals earlier?

Secretary **Weinberger**. Oh, yes, without question, Senator Warner. The only point I would raise—and it is not really a question; it is more or less just an underlining—it does not require a shift.

The President in 1985 said that he felt that the broad, legally correct interpretation was the one we should and would use. At that point, the issue was more or less moot because we were not making the progress that we are now. What we were doing suited any interpretation.

The President said in 1985 the legally correct interpretation was justified, and now we are at the point where it is important to start considering those matters

Senator **Warner**. Let me see if I can go back and clarify that. He did state in 1985 he felt that there was legal justification for his administration or future administrations to follow the broad interpretation. Nevertheless, he said we would continue for the foreseeable future on a restrictive interpretation?

Secretary **Weinberger**. We did and we are. But now we are moving rapidly so that we can move to the proper interpretation.

Senator **Warner**. Let us talk about where we are moving. Are not certain persons in the administration now in the process of advising the President on a procedure by which you do reach a decision point to shift from the broad to—that is, from the restrictive to the broad interpretation, for the very reasons you have outlined—it is cheaper and you can get there quicker?

Secretary **Weinberger**. One thing we are doing is acceding to the chairman's request that we allow time for him to complete his personal examination of the whole record. We are glad he is doing this and are making all the papers available to him.

We are also working on general consultations with allies. I had some discussions this morning, as a matter of fact, with the British Secretary of State for Defense Affairs, Mr. Younger, who is here. That is going on and we will continue that process.

We are also discussing with the President several things we can do under the legally correct interpretation and several we cannot do otherwise. You are quite right that there would be a substantial savings in both time and money to move toward that interpretation.

Senator **Warner**. Mr. Secretary, one of my responsibilities and that of my colleagues is to try to advocate the President's program. He has sent up a number on SDI. We must defend it.

As part of that, we owe our colleagues the best information we have on when the President might reach a decision to shift from the restrictive to a broad course. Is that imminent?

Secretary **Weinberger**. Yes, I would think that it is coming very soon. I would not want to prejudge or anticipate anything that the President might do. We are working toward setting out the things that we can do now that we could not do earlier and the restrictions that a narrow interpretation places on the work that we can do—all of these are being presented to the President.

Senator **Warner**. My point is, you are working on a timetable toward a decision point and the President will decide either to continue on the restrictive or shift to the broad. We the Congress are working on a timetable with respect to our authorization and appropriation bills.

Can you overlay the two timetables? Is there an overlay?

Secretary **Weinberger**. I think so, yes. Certainly one of the aspects of what we want to do is consult with the Congress.

Senator **Warner**. That I understand, and the allies. But I am looking at a bill which I think the chairman and I hope to move to the floor at a very early time this year. Is this decision likely to impact on our deliberations with respect to the SDI program?

Secretary **Weinberger**. I think it should be an integral part of your deliberations to know essentially what it is that we plan to do, what we can do, and what we cannot do.

Senator **Warner**. And what the President will decide to do?

Secretary **Weinberger**. And the amount of savings that would make, both in time and money.

Senator **Warner**. Thank you, Mr. Secretary.

AIRCRAFT CARRIERS

Now, if I have a second question, the issue of the carriers. This will be debated, I think here shortly, and justifiably so. What are the alternatives if the Congress does not authorize this year the funding for the two starts?

You would have to keep ships in service which are rapidly reaching, in the judgment of many, their limit on service to the fleet, am I not correct?

Secretary **Weinberger**. Yes; in the fifties, Senator, we built one carrier every 15 months. Inevitably, some of those are getting old, along with the rest of us now. We decided long ago by the necessities of the situation that we need 15 deployable carriers, battle groups.

In order to do that, planning is structured far in advance. There has been discussion about our not planning last year to start the two together. As we spent a year in the budget process and examined the process, it became quite apparent that it was better from every point of view to do that. We can save close to $3 billion.

If we do not do that, to answer your question—what are the alternatives? The alternatives are not only to keep the carriers in service longer than they are capable, but also to spend a great deal more money than necessary on items that we all know now we will have to buy.

From every point of view, it is vital to start the two together. The remaining consideration, perhaps the most important of all, is that if we do not get the authorization this year, we will reach a point in which the very highly talented, trained work force will no longer be required and will dissipate and then have to be reassembled, at an enormously increased cost.

Admiral Crowe is more familiar with this. He saw it happen with submarines a number of years ago when a comparable situation occurred. Much more money was spent than should have been just to reassemble a dispersed work force.

Senator **Warner**. Perhaps the Admiral could take a minute and in that context address the *Nimitz* class, and that you would probably make some changes in the ships that you are requesting this year as a natural evolution of the technology; is that correct?

Admiral **Crowe**. I am sure if circumstances dictate that, yes, Senator. And of course, as in all equipment, as new things arrive, we will adjust to those. For example, in the electronics warfare area, we are constantly having to improve our equipment and we would do that on the carriers.

But even if we get these two carriers, the *Midway* is going to be in the neighborhood of 52 years old before she is replaced. For example, if we are forced to go with the *Midway* longer, it is going to be more costly. We are going to have a precipitous rise in maintenance problems.

There is a class of aircraft, the F-14, which the *Midway* does not fly. It is more difficult to deploy her, particularly in the Indian Ocean. We already have problems deploying the *Midway* to the Indian Ocean, and it is tough on our people.

And that strategic requirement to remain in the Indian Ocean, both in peacetime and wartime, is now with us. It is going to be with us for a long time, and we cannot meet it with our present 14 carriers. That is why we are going to 15, and we are going to need modern carriers to do it.

So, if we have to stay with these older carriers—incidentally, that increases our sustainability problems, too. The carrier itself has something to do with sustainability, and the longer you live with those, the more serious your sustainability problems across the board are.

Senator **Warner**. My time is up.

Chairman **Nunn**. Thank you.

Under the early bird rule which is now, by popular demand, in effect, Senator Gore is recognized.

Senator **Gore**. Thank you very much, Mr. Chairman.

Welcome, Mr. Secretary and Admiral Crowe. Briefly, on the point I interrupted you on in your testimony, I checked the figures and not only are you right, it may have been a decrease of more than 1 percent the way we calculate them. But I do not want to dwell on that.

SDI PROGRAM

I want to go to the subject that the chairman and the ranking minority member have both opened up, and that is the SDI program. I listened with great interest when you said that you agree with Secretary Shultz's statement that we cannot decide this year or next year whether or not to go forward with deployment.

And then you said you do intend to deploy in a phased basis if and when that comes, and you said now we are moving rapidly so we can move to the broad interpretation, as some of us refer to that interpretation. You also said, Mr. Secretary, that if the President moves to the broad interpretation it should not be seen as a shift, because he unilaterally decided almost 2 years ago that that was the legally correct interpretation.

Is it your position that the President can unilaterally change the meaning of a treaty as it has been understood in the past by both the executive and legislative branches if the prior interpretation was the one given to the Senate at the time the treaty was ratified, thus becoming legally binding on the Nation?

Secretary WEINBERGER. Senator, I think that the interpretation of a treaty rests with the executive, whomever he may be. This point was never neither specifically considered in the ratification process, nor has it been seriously raised in the years between. The issue never had any importance since no one on our side was working on strategic defense.

It would be interesting to find out if the Soviets, during the 17 years they have been working on strategic defense, felt themselves in any way constrained. They never do, but they are always eager to constrain us.

My position is that the President is perfectly within his constitutional and executive authority, indeed his responsibility, to interpret the treaty according to the advice he is given with respect to its legal force and effect.

That is essentially what he said in 1985 he was doing. There is a number of years in which it was a completely dormant issue. It was not an issue at all because we were not doing any work in that area.

Senator GORE. Now, let me phrase it as a hypothetical question, because your response was to assert that there was no clear interpretation to this, of this particular provision given to the Senate at the time of ratification.

If, after a careful review of the record, it became clear that the administration clearly stated the meaning of a treaty provision and upon that basis the Senate ratified the treaty, then, speaking hypothetically, would a President have the legal right to unilaterally change the meaning of that treaty provision after ratification had been based on another meaning?

Secretary WEINBERGER. Senator, you assume, I think, the afirmative in that answer.

Senator GORE. It is a hypothetical question, Mr. Secretary. I am asking for your response.

Secretary WEINBERGER. Normally I do not answer hypothetical questions, but I am willing to make an exception.

Senator GORE. I appreciate that.

Secretary WEINBERGER. The hypothesis you posed was that the President submitted an interpretation which the Senate accepted, and by that hypothesis you are stating the right of the President to interpret the treaty.

The treaty was submitted on its wording and adopted or ratified by the Senate on its wording. Various people have different understandings as to what that might mean. I do not find anything in the record——

Senator GORE. Mr. Secretary, the hypothetical question is——

Chairman NUNN. Would the Senator yield for just a moment?

Senator McCain, you are being recognized next. The Senator has a serious time problem this afternoon. We have a vote going and if I could urge some members to go ahead and vote now, we would not have to interrupt the hearing and keep the flow going. And since you are recognized next, I would at least like to make that suggestion.

Senator GORE. Let me just restate the hypothetical. You have a treaty submitted to the Senate, the President says, here is what the treaty means. The Senate votes on the basis of that expression, and then a year later the President says: Well, I have decided this treaty means something else.

Under our Constitution, is it your view that a President has the right unilaterally to change the meaning of a treaty, even if its ratification by the Senate has been based on an entirely different meaning?

Secretary WEINBERGER. Senator, I can't accept all of your hypotheses, because your hypothetical case does not state the considerations that we have now. This President is not unilaterally changing the interpretation or the meaning.

He is stating what he felt was the meaning of the treaty from the beginning. If the hypothetical question is does this President have the right to state what interpretation he feels applies to the treaty from the beginning, my answer is yes, regardless of whether the Senate had a different understanding when they ratified the treaty.

Senator GORE. So you are declining to answer that hypothetical question. I mean, I understand why the question gives you difficulty. I think a lot of us understand why it is a difficult question for you to answer.

But it would be interesting to have an answer.

Secretary WEINBERGER. It is not that, Senator. A hypothetical question, as you know, in courtroom procedure has to follow a factual situation that is before the court at the time. And your hypothetical question——

Senator GORE. We are not in a court of law, Mr. Secretary.

Secretary WEINBERGER. I understand that. But I also know the way in which answers to hypothetical questions can be misused, not by you, of course, but by others.

Senator GORE. Well, you can bet the answer would be used. But the failure to answer I think is significant as well.

Secretary WEINBERGER. It is not a failure to answer. It is straightening out the question so that it states a hypothesis that is in accordance with the facts we have before us.

Senator GORE. Well, thank you for not answering the question. Whoever the acting chairman is, I believe my time has expired.

Senator EXON [presiding]. Senator McCain.

Senator MCCAIN. Thank you, Mr. Chairman.

And I would like to take this opportunity to congratulate the committee on their wisdom in adopting the early bird rule.

Senator EXON. I congratulate you also. We rode over together and we walked in the hall together, and I came in 1½ hours later. That is what seniority does for you. [Laughter.]

Senator MCCAIN. I am sure also the Senator from Tennessee shares my appreciation with the members of the committee.

I would just like to comment on this budget process, Mr. Secretary. I am sure you are aware that indeed there are failures in this budget as submitted.

I will be very interested, as I know you will be, to see if on the 25th, in keeping with their statutory obligation, the Congress comes up with a budget. I will also be very interested if we will be treated to the bizarre and incredible experience of last year in which 13 appropriations bills all rolled into one omnibus $570-some odd billion bill, in which the President is not given the benefit of the line item veto.

And I would hope that we on the congressional side will pay attention to our obligations as well.

CONTRAS

But I would like to direct my questions, with what little time I have, to Admiral Crowe. Admiral, I was very disturbed, in fact more disturbed than any hearing I have ever attended, at the hearing that General Gorman gave the other day on the subject of the Contras.

I am sure you are aware that he gave a very pessimistic viewpoint as to the capabilities of the Contras, the long-term prospect, the way that they are conducting their war down there, and that he believes that, in his words I believe, "they have just become a cross-border raiding party."

General Gorman is held in high esteem throughout this country, and I am sure by you. And also, the comments that you made at the last hearing at which you appeared I think were either misinterpreted or—I hope were misinterpreted, in that you displayed a certain amount of cynicism as to the prospects of success of our effort in support of the Contras, and indeed the prospects of success on the Contras' part.

And I would like to have what I hope is an unequivocal statement concerning your position, as the President's principal military adviser, as to whether you support aid to the Contras and what funding will be required, and what is your prospects, as you see them what the prospects are for short term successes and long term success?

Admiral CROWE. Well, Senator, you are right, I have high respect for General Gorman. I do not necessarily agree with him, though, particularly on this subject. I am a little surprised by his confidence in an area that seems to me to be rife with problems and uncertainties, and how anybody can be quite that confident escapes me.

I do support the President's support of the Contras very strongly, and I do believe that the prospects of doing something down there is both to the benefit of the region and to the United States are good if we can presevere.

The confusion I think you are talking about was not in the hearing I attended, but in the press article that was written within the last 2 days that said I had some concerns about the long term prospects. In the answer to the question that I really was addressing, I said that I thought that if we work with the Contras, if we give our support to them, and if we continue to try to solve the problems they have now, and to develop the force and to improve it, that the prospects for success were good, but that it would take determination on America's part—it would take some patience and tolerance.

And then I was asked: Well, that sounds like an open-ended commitment. And I said no, I did not think it was an open-ended commitment, but if ultimately we could not show some success and if we did not achieve something, I was sure that the American people would not support such an effort indefinitely.

But I was very high on the prospects; I was very high on our policy, and I think we are going in the right direction. That is not to say that the Contra movement is trouble-free, that there are no problems. I would be surprised if there were not.

It is not to say that they are not going to have to develop a strategy, to learn to live in the country, to broaden their political base, and to develop a base for influencing events there. That is all ahead of us, and I think the prospects for achieving that are good if we continue our support and we continue to strive.

Senator McCain. And you believe that the type of warfare being waged by the Contras at this time is the kind of warfare——

Admiral Crowe. Well, let us bear in mind now, the Contras are at a very early stage of the training. Obviously, some of the warfare that the Contras were waging before the Congress provided additonal support was not as organized as we would prefer. They did not have the strategy, at least in my view, and it was a sort of ramshackle military operation that needed a great deal more focus and a great deal more training. And the Contras are doing that now. The Contras are trying to organize a force that is effective under those circumstances.

Senator McCain. Admiral, it is a very real possibility that this Congress may not approve further funding beyond the $40 million. I think if that is the case that all Americans, as well as Members of Congress, should be aware of the challenge that that now presents us with as far as U.S. policy in Central America is concerned.

And perhaps you could elaborate for the record, on this very complex and difficult issue. What would the United States' actions have to be, particularly in the form of expenditures, in order to contain a Sandinista Marxist government in Central America if the Congress decided to no longer provide funding for the Contras?

Admiral Crowe. Well, I think we have a considerable investment in the Central American region. We even have a good success story. In the last few years, we have been remarkably successful, better than many people predicted, in encouraging those countries and in helping El Salvador, Guatemala, Honduras, and even Costa Rica to move to a broader representative government, to put down some roots in the democratic side of the house, and to solve some of their economic problems.

They have enjoyed considerable success, and a lot of this is due directly to American support and American policies. But I repeat that those democratic roots are rather fragile, and if we want to see the gains we have made there protected, it is necessary that we, in some fashion, support the Contras.

You find that opinion is expressed throughout the leadership in those democratic countries. They are concerned about Nicaragua and the threat that it represents to them and to their progress, and I think——

Senator McCAIN. Admiral, my question is what does the United States do if the Congress of the United States decides not to fund the Contra effort in Central America, which unfortunately is a very real possibility in the opinion of many experts?

I understand the successes we have enjoyed in the past, but I would like to know what you feel, as the President's military adviser, the United States would have to do in order to protect our national security in Central America.

Admiral CROWE. I think first of all it would be a very grave mistake to back out at this point. And second, I think we would be encouraging another Cuba right in the middle of Central America.

We have already had enough problems with one Cuba, and that would require a very painful reassessment on the part of this country as to how we are going to deal with it. It also would involve considerable loss of confidence among many of our friends and allies in that part of the world.

Senator McCAIN. Thank you, Admiral. Thank you, Mr. Chairman.

TRADE DEFICIT

I would just like to add one other point, and that is I believe that many Americans are deeply disturbed about our trade deficit, are deeply disturbed about the lack of contribution on the part of the Japanese. And I hope that we are re-evaluating our relationship with the Japanese, particularly as regards their contribution to the defense of the Persian Gulf sea lanes, the communications, and generally our defense in the Pacific.

Senator LEVIN [presiding]. Thank you, Senator McCain.

ABM TREATY INTERPRETATION

Welcome to both of you. Mr. Secretary, you have talked about a Presidential decision on whether to move to a broad interpretation of the ABM Treaty. Can you tell us whether the President has decided to move to the broad interpretation?

Secretary WEINBERGER. Senator, in 1985——

Senator LEVIN. I know what you told us, but has that decision been made?

Secretary WEINBERGER. What I was about to say was, in 1985 he said that the proper, legally correct interpretation was the broad one.

Senator LEVIN. I understand, and he said it was moot. But now you say something is under study, and I want to know whether or not the President has decided to move to it as the operative opinion.

Secretary WEINBERGER. I think the question is whether or not the various experiments and research projects that some might contend contravene a narrow interpretation should be conducted. That is the only decision to be made, and that is a decision which we do have under study. I understand the chairman is also studying his view of the negotiating record of the treaty itself.

Senator LEVIN. Well, if the decision has already been made to move to the broad interpretation, what is the relevance of your question?

Secretary WEINBERGER. My question?

Senator LEVIN. The question that you say is the proper one—if it has already been decided to move to the broad interpretation and if that is the interpretation we are operating under right now.

Secretary WEINBERGER. No, I didn't say that. I said that the President said in 1985 that that was the legally correct, proper interpretation. He also said that the issue at that point was relatively moot because we were not doing anything that was not perfectly acceptable under both interpretations.

We are now, because we have moved so much more rapidly than we thought we could, to the point where some of these experiments that we can do and should do require the broad interpretation. The question really is, should we embark on those experiments?

Senator LEVIN. With the broad interpretation as the one we're operating under, why is that improper?

Secretary WEINBERGER. I did not say that.

Senator LEVIN. Which one are we operating under?

Secretary WEINBERGER. We have tried to keep the various experiments within the narrow interpretation, not because it is right, but because the President, when he announced the proper interpretation decision in 1985, said that it was not necessary to move outside of it at that time.

Senator LEVIN. So is it fair to say we are now operating under the narrow interpretation at this point.

Secretary WEINBERGER. That is correct.

Senator LEVIN. Thank you.

When will the decision be made as to——

Secretary WEINBERGER. I do not know. We are presenting to the President, at his request and at the request of the National Security Council, a set of programs that, first of all, we could do under the broad interpretation, but would be restrained from doing under the narrow one and what the cost of that would be both in time and money. We are presenting that to the President in the next few weeks.

Senator LEVIN. Do we have a timetable for a Presidential decision on whether to move and when to move to a broad interpretation?

Secretary WEINBERGER. When to indulge in research work that would require the broad interpretation?

Senator LEVIN. Yes. Do we have a timetable?

Secretary WEINBERGER. We do not have a timetable, but it undoubtedly will be coming within the next few months.

Senator LEVIN. Are there any experiments or activities in the 1988 budget request which are inconsistent with the narrow interpretation of the ABM Treaty?

Secretary **Weinberger**. I do not believe so. The budget, however, is not presented to you in the form of a number of specific experiments. It is a request for funding for a broad research program in a number of different areas, so that the approval by the Congress of various sums of money does not necessarily commit to specific line item type authorizations for experiments, as indeed it should not, because each experiment brings with it results that lead us to fields that you cannot really budget for 15 or 20 months ahead of time.

Senator **Levin**. If we approve the budget as submitted to us for SDI, would we then be approving any experiment or activity which violates the narrow ABM interpretation?

Secretary **Weinberger**. I am not aware of anything specific, Senator. But I also want to emphasize the point that the request, and I would hope the approval, would come in a form that would be broad enough to permit the Strategic Defense Initiative Office to conduct research that could require the broader interpretation.

We are reconfiguring experiments we could do to conform to the narrow interpretation.

Senator **Levin**. Do you know how much less a deployment would cost us, and how much faster a deployment decision could be reached if we moved to the broad interpretation immediately?

Secretary **Weinberger**. No. It is very hard to project that. I think that in very broad terms we have been talking about somewhere in the neighborhood of 1998 or 1999. We now believe that, with the proper experiments under the broader interpretation, we could get a first phase deployment somewhere in the 1993-1994 range in the first phase.

We do not have anything definite, and we certainly cannot give you definite cost figures. People who do really are not able to justify them, because we do not know precisely which of the various methods we would use. We are looking at a number of different methods of destruction of Soviet missiles. We are also looking at battle management, command and control, sensors—all of the things that are required by the program.

Senator **Levin**. Thank you.

FUNDS TO CLOSE BASES

Senator **Bingaman**. Mr. Secretary, let me ask you about the figures you have got in the charts accompanying your testimony. You are asking for funds to close some bases. I wondered if you had given us the specifics of which bases, I guess.

In 1988 you needed $45 million, and in 1989 $48 million, to close bases. I wonder if you had the specifics of which ones?

Secretary **Weinberger**. I can give it to you in general terms, Senator. We can get it specifically, and it is in the budget. Bear in mind that it is contingent upon an increased and streamlined authority to close bases short of the 22 to 24 months that it takes now.

Among the bases suggested for consideration is Mather Air Force Base in California; a Philadelphia hospital I think, in Philadelphia; and two or three others. We can get the full savings that ultimately would be obtained from that.

A savings is not realized in at least the first 2 years. You have to make an expenditure to get your savings. The requests are contingent upon getting the added flexible authority. With that we could make these savings ultimately but not very early.

Senator **BINGAMAN**. Now, have you also submitted or are you planning to some proposed legislation to accomplish the change in authority?

Secretary **WEINBERGER**. Yes. I believe that legislation is prepared. It is either before you or it will be shortly. It consists of shortening the period of time, which presents a large number of hurdles to be crossed before a base can be closed, and these hurdles add to the cost of closure.

MILITARY CONSTRUCTION PROGRAMS

Senator **BINGAMAN**. Let me also ask on the chart that you had up here called "Major 1988–1989 military construction programs," I did not see anything on there about strategic home porting. Is that an oversight or is that not expected to cost a significant amount in the next 2 years?

Secretary **WEINBERGER**. No, we strongly support that. We did not list any specific programs under the military procurement, but we did list strategic home porting.

Senator **BINGAMAN**. There it is. I just missed it.

Secretary **WEINBERGER**. No, we are still strongly for that and we hope you will be. [Laughter.]

RAIL DEPLOYMENT FOR PEACEKEEPER

Senator **BINGAMAN**. Now, the rail deployment of the Peacekeeper. Have you made any decisions on the location of that?

Secretary **WEINBERGER**. There are a number of locations. Warren Air Force Base would be one of the principal bases. We have a short list of a number of other places where the so-called garrison deployment would be located.

I do not think we are in any position to give a final list yet, but we are considering a number of places. The idea is that they would be in these garrisons and existing rail nets would be utilized to transport them, so that they could be launched, if need be, from a number of different locations.

We hope that this would meet the survivability aspect which the Congress has expressed great interest in in previous years.

Senator **BINGAMAN**. Just out of curiosity, is New Mexico or any part of New Mexico part of your short list?

Secretary **WEINBERGER**. I think there is a site in New Mexico, but I would not want to cause undue elation or alarm by saying so without having the short list before me.

It obviously varies. It was a longer list before it was a short list. We will give you the reductions or the changes that were made in it at any time you request.

Senator **BINGAMAN**. Let me ask, on page 10 of your testimony you refer to the SDI and say: "It permits us to make significant reductions in offensive weapons by supplying an insurance policy against non-compliance." Is there an implication there that, absent

SDI, we could not go forward with significant reductions in offensive weapons?

Secretary WEINBERGER. No. We feel that we can sign reduction agreements with the Soviets that are not in any way linked to strategic defense. They have to be thoroughly verifiable. They should bring us down to parity on both sides. There should be real reductions, not licenses for increases.

We think agreements of that kind, if the Soviets would agree, could be signed with no connection to strategic defense. Strategic defense offers an opportunity to protect people against weapons systems, at whatever level they may be deployed.

RESEARCH AND DEVELOPMENT

Senator BINGAMAN. Over on page 18 of your testimony, you refer to the research and development efforts and say: "Despite continuing large Soviet investment in military research and development, the United States still maintains leads in 14 of the 20 most important basic technology areas."

Could you describe a little bit the six that we are trailing the Soviets in, and what initiatives, if any, you are proposing to catch up in those areas, if that is significant for our national security?

Secretary WEINBERGER. Laser is the one that comes to mind initially. They have done quite a lot of work in that area.

They also have leads, I think, in some of the guidance technologies. Many of these leads have been increased by theft of technology from us. We do have very active defensive programs against losing leads.

There are requests in the budget that are designed to recover for us some of the leads and some of the improved research and development in areas where they have progressed very, very rapidly.

Senator BINGAMAN. I see my time is up. Thank you.

Senator EXON [presiding]. Senator Wilson.

Senator WILSON. Thank you very much, Mr. Chairman.

Mr. Secretary, let me just ask a question that shifts the subject, though I do want to get back to the subject of SDI. But we are in an authorization hearing and we are necessarily concerned with money, and your charts I think this morning have been very interesting, or this afternoon, rather.

But let me just ask this. Over the past 3 weeks we received testimony from you, from Admiral Crowe, from a number of others indicating their position on what should be a national military strategy. And during the course of these hearings I think some very interesting questions were asked, one by my colleague Senator Exon.

RAIL MOBILE MX

Specifically, the question was put to Admiral Crowe during his testimony by Senator Exon whether or not, if he had to choose on the basis of budget considerations whether he would go forward with funding a rail mobile MX or the proposed Midgetman, which he would choose. And if somewhat reluctantly, I think he said, quite commendably and directly, that he would choose the rail mobile MX.

I later asked General Welch if he agreed still with his earlier assessment made when he was CINCSAC, that in terms of ranking strategic priorities he would rank the Midgetman last. And he said that now, in his capacity, as I had framed the question, as the Chief of Staff of the Air Force and a member of the Joint Chiefs, whether he would hold to that assessment, and he said that he would.

Let me ask you whether you concur with those comments in the ranking of Midgetman as the last of the priorities in terms of our strategic accounts.

Secretary **Weinberger**. If we are forced to choose, because of fiscal problems and otherwise, between the completion of the MX system up to the numbers that we need—in other words, we had 50 authorized and appropriated and we have asked for 50 more in the rail mobile system—and the small single-headed missile, I would choose the MX unhesitatingly.

Senator **Wilson**. Where would you rank it, to ask the same question I asked General Welch, in terms of all of the strategic priorities that will be competing?

Secretary **Weinberger**. I have not yet found it necessary to actively disagree with many of the recommendations General Welch made. While it is probably possible that something else would rank lower, on the basis of the two that you mentioned, the MX clearly is the more cost effective.

Senator **Wilson**. Well, I do not want to restrict it to MX. My question to him was, as it had been when he was CINCSAC, rank it with all of the strategic systems that will be competing. And his ranking was last.

Secretary **Weinberger**. If we had to choose between the B–1 bomber, the ATB, the improved command and control and communications that we need, the completion of the submarine program, I would think that General Welch is right. It would be at the bottom of that list.

Senator **Wilson**. Admiral Crowe, is it a fair statement that among your colleagues on the Joint Chiefs that there would be a high priority to achieve the virtue of survivability through mobility, given the funding required to assure that we do improve C–3 with the submarine force and that we actually improve that capability?

Admiral **Crowe**. Would that be a high priority? Yes, very definitely.

Senator **Wilson**. In terms specifically of being able to achieve the advantages of mobility. I mean, we have got mobility. The real problem is can we communicate.

Admiral **Crowe**. That is correct. And of course, obviously we put great stress on survivability and mobility. That is the reason we invest in the submarine.

Senator **Wilson**. All right. Thank you.

STRATEGIC DEFENSE INITIATIVE

Let me now shift back to the subject of SDI. In response to Senator Warner's question, Mr. Secretary, you indicated that there is a desire to achieve an interpretation of the ABM Treaty that would allow us to make progress, and the specific language you used was that "if we could do so earlier and on a less costly basis, obviously that would be greatly desirable."

You also were quite forthcoming in saying that there is no question we would like to do that and that we want to deploy as soon as we can an anti-ballistic missile system, a defensive system that is reliable and does achieve what we want it to achieve.

Currently there is a great debate focusing on whether there should be a broad or narrow interpretation. I am just curious, and I understand that I am taking my chances when I put this question to someone who graduated No. 1 in his law school class from Harvard. But do you not think that this is largely a lawyer's entertainment, and that what really should guide considerations is the greatest interest of U.S. security?

Under the ABM Treaty, we are permitted to negotiate a new treaty, and it would seem to me that we should be concerned with whether we are constrained by technology or falsely constrained by what may be an outdated treaty under almost any interpretation.

Secretary **Weinberger**. I was not quite No. 1, Senator, but you are very kind.

It does have some elements of that in it, and it does seem to me that the important thing is that the President has already decided the correct interpretation. The question is whether we should do experiments within that or whether we should limit ourselves to something less than what we are able to do, thereby delaying and making more costly a system which I think is critically important to deploy as soon as we can.

Senator **Wilson**. Well, let me just ask this question to you and to the Chairman of the Joint Chiefs, to Admiral Crowe: Does it not make sense for us to do whatever is necessary in order to achieve as early as possible, at the least cost possible, the kind of system that we do want to deploy?

Is that not really what we should be concerned about? And should we not, if necessary, be in a position of saying to the Soviets: This is good for us, it is good for you, it is good for the free world, and we urge you to join with us; but if you do not, we are prepared to proceed unilaterally, as it is our option to do even under the escape from the ABM Treaty?

Secretary **Weinberger**. That is essentially, as I understand it, Senator, what the President has said. We do have matters of timing and consultation with the allies and with Congress, all of which we are doing. We obviously want to ensure that it is understood that we have support for the interpretation the President has already made.

If others have different views, we want to hear those. But essentially, what you have stated is the course that we are following and should continue to follow.

Senator **Wilson**. Mr. Chairman, my time has expired. But just by way of information, picking up on Senator Bingaman's question earlier, on page 3 of the resolution which the Senate is now, I think, passing handily in a resolution that is Senate Joint Resolution 94 by Senator Byrd and Senator Dole, the language at the top of page 3 in the resolved clause reads:

Urges the Soviet Union not to condition progress in all arms control matters to the satisfaction of its negotiating position on issues relating to strategic defense technologies.

That language very clearly separates arms reduction in terms of reducing offensive inventory from concessions with respect to SDI. And I gather that all of our colleagues are going to record in support of that, and I think that is a good thing.

Thank you, Mr. Chairman.

Senator EXON. Mr. Chairman, I will not rehash anything that you and I talked about in our conversation on the budget. But let me ask you a question that I think is on the minds of an awful lot of people today, and I think you might be able to give us a little bit of insight into it.

ARMS CONTROL AGREEMENT

It is this Senator's view that we have a farily good chance of coming to some kind of arms control agreement with the Soviet Union during the last 2 years of the Reagan administration. Although I hear negative comments on that all across the board, I happen to think that the political situation is such that unless we come to some kind of a meaningful agreement in the next 2 years or the last 2 years of the Reagan administration, it may be a long time before another opportunity comes to pass. I think that is neither in the interest of the United States or the Soviet Union or mankind.

How do you view the chances of a meaningful agreement between the United States and the Soviet Union during the last 2 years of President Reagan's term?

Secretary WEINBERGER. Senator, I think you and I are in full agreement. I hope we will get one. I hope it will be an agreement that provides for deep reductions in nuclear arms, both strategic and intermediate range. I hope that it will be completely verifiable, as it has to be in view of the past Soviet history of cheating.

It should bring us down to parity on both sides. There should be no linkage of it to any other extraneous matters, by which I mean specifically that the Soviets should realize that they cannot secure an agreement of that kind at the cost of requiring us to give up or effectively block the strategic defense program.

I think the Soviets want to have an agreement on reductions. They need one. The world needs one, and I think they realize that. I think they will make every effort through their propaganda machinery and through their ability to work on our public opinion, contrary to what we have—we have no opportunity to work on theirs because they do not have any.

They will make every effort, and it will increase in the next few months, to get us to drop or effectively curtail, restrain, reduce, or one way or another prevent us from getting a strategic defense, while they are free to continue as they have for 17 years.

If we are firm in resisting that and if they sense that the American people as a whole are firm in resisting that, then I believe we can get the kind of agreements that both you and I want and feel are essential.

It will be a time of testing in the next few months, but it is essential that we get those agreements. The Soviets want them, but I think they want them on their own terms, as they so frequently do. And I think those terms would be ruinous.

We should not feel that by insisting on strategic defense, which we are, that we are in any way weakening the effort to get the kind of agreements that we all need.

Bear in mind, sir, that Gorbachev himself has said, in a speech widely quoted and used in the NATO meetings during the preparation of the communiques and others, that he did not feel there was any reason or desirability of linking these two.

This was about 6 or 8 months ago. That is a position which I hope and believe they will ultimately come back to.

Senator EXON. You are the known and recognized hard-liner inside the administration—and I do not say that negatively. That is where you stand. Everybody knows that. What possible compromise do you see possible that would allow adherence to the narrow or standard interpretation of the ABM Treaty, enable SDI to go ahead with testing in the laboratory, and yet be acceptable to the Soviet Union and lead to an offensive arms control agreement?

Secretary WEINBERGER. Well, sir, I do not know what they would agree to, but I do know that we should not hamper or prevent ourselves from getting strategic defense as a deployed system as soon and as inexpensively as we can.

If we construct such research programs so as to satisfy extraneous and irrelevant needs to that research program, then we are in danger of costing ourselves a great deal more money and, even worse, a great deal of delay.

There are some things that we could do. We, as I said, are in no position to deploy this year or next year, and I think that is generally known. We do not know the status of the Soviet program except that they have been working on it a long time.

We do know that they are ahead of us in certain areas involving laser work. We certainly know that it would be a vastly more dangerous world if they deployed first, and it is essential——

Senator EXON. If they deployed SDI?

Secretary WEINBERGER. Yes, sir, yes. And we certainly——

Senator EXON. Well, you don't really think that's going to come to pass, do you?

Secretary WEINBERGER. I don't know. I'm not willing to make any predictions with absolute certainty about things that I do not know enough about. I do not know enough, and I do not think any of us know enough, about what they have done.

We do know certain aspects of it. We know that they have been working a long time. We know they are desperately anxious to stop us from working on it in any effective way. You put all those together and you can draw some conclusions. The important thing is to try to get arms reductions of the kind I have mentioned, deep, down to parity; and verifiable, and to enable us to continue working on strong defensive measures.

There is no inconsistency or incompatibility in that. It is a simple matter of serving the national interest.

Senator EXON. Mr. Secretary, in the administration's budget request, there is considerably more money in that budget for research and development on Midgetman than there is for rail-based deployment of the MX missile.

I do not remember the exact figures for the MX, but it seemed to me like it is about $400 million or $600 million.

Secretary Weinberger. We are requesting $591 million in fiscal year 1988 and $1.2 billion in fiscal year 1989 for full-scale development of rail garrisons.

Senator Exon. For the rail-based MX; and what, it is $2 or $3 billion for Midgetman?

Secretary Weinberger. Yes, sir, in that range—$2.2 billion each year in fiscal year 1988 and fiscal year 1989 for continued full-scale development.

Senator Exon. With the rail garrison MX, you have finally wooed over a firm opponent of the silo-based MX missile. It seems to me we have the MX missile and we know it works. Why in the world do we not go on an expedited plan to make that mobile MX missile part of our deterrent as quickly as possible?

And how bad would you feel if we were to scale back some of that money for the Midgetman and put it over into an earlier and speedier deployment of the rail-based MX?

Secretary Weinberger. Well, Senator, I am obligated and, of course as you will appreciate, required and do support the President's budget as submitted. The figures that you mentioned are here.

Small ICBM full-scale development will cost $2.2 billion each year in fiscal year 1988 and fiscal year 1989. In contrast, full-scale development for the Peacekeeper missile is already largely completed, and will cost only $51 million in fiscal year 1988 and $40 million in fiscal year 1989. In addition, we are requesting $591 million in fiscal year 1988 and $1.2 billion in fiscal year 1989 for full-scale development on the rail garrison basing mode.

I have already responded to Senator Wilson that, if forced to choose, I would choose the garrison rail-based Peacekeeper, and that on a priority basis we would rank them in the area in which I indicated to him, in that range.

The Peacekeeper is, we think, with its 10 warheads and with the more survivable mode that the rail garrison would give it, a very cost-effective offensive deterrent.

Senator Exon. Quickly, and we could do it quickly. Why do we not do it more quickly than what you are suggesting?

Secretary Weinberger. We might be able to, but acceleration would bring with it technical and cost risks that are minimized under the schedule we propose.

Senator Exon. We might.

My time is up. Thank you. [Laughter.]

Chairman Nunn [presiding]. Senator Quayle. And I believe Senator Wilson and Senator McCain, have already asked questions?

Senator Wilson. Yes, Mr. Chairman.

Chairman Nunn. Senator Quayle.

Senator Quayle. Thank you, Mr. Chairman.

DEVELOPMENT AND DEPLOYMENT OF SDI

Welcome, Mr. Secretary, Admiral. First I would like to just remind you of an important report. I know how you like reports to the Congress, but this is one that is exceedingly important on

March 15, where we asked you to give us what you think could be developed and deployed of SDI in the next 5 to 10 years that would address significant military threats.

I think it is a very important point, particularly in the debate that we have had of what we can and cannot do as far as near-term deployment of SDI. But after we get that, perhaps we will cut down on the number of reports, but that is one that at least I look forward to receiving.

As far as this whole debate on SDI and the interpretation of the ABM Treaty—and I was out when Sentor Wilson spoke, but I understand that he indicated that we should focus more on the system itself, and if that is the case then I would like to concur very strongly.

I think that what we really need to do in this debate is not necessarily get down and to have a lawyer's argument on which interpretation. I am perfectly comfortable with the legal interpretation that the administration has found from the ABM Treaty.

Lawyers are going to disagree. Reasonable men and women are going to disagree. But I think the most important debate that we are going to have is not necessarily the interpretation of the treaty, but what is the system? What is the system that is going to bolster our deterrence? What is the system that we can in fact look at in the near-term deployment?

What is this military capability of strategic defenses that is going to increase our security and stability? That is where the debate should be. I mean, we can sit around and spend hours going through all of the pages and the documents and everything, and to go back and to see whose interpretation is correct or not correct.

But once we get a consensus and once we get an agreement on what an SDI system should look like, then we are making progress. And I think that that is the way that we should proceed, is to get this debate focused upon potential systems of SDI.

And I guess I would like you to sort of lay out before this committee a way that we can work with you in focusing on a potential system of strategic defenses, whether it is the kinetic kill vehicle coupled with a terminal midcourse type system or whatever that system may be, what we can in fact expect as far as recommendations and where we can begin to get our oversight, our congressional responsibilities in looking and working with you on what kind of a system may or may not be deployed, what kind of a system that we need to do testing and development.

And I wonder if you might just outline with us a general road map and how this committee in particular can begin to address the technical capabilities of a defensive system, the military capabilities of this system, how it is going to play in our balance of power, and the increase of deterrence that we so desperately need with the strategic defense system.

Could you give us an indication of how he can go about this in a better manner, rather than just the arcane debate over which lawyer happens to be right in this particular interpretation?

Secretary **Weinberger**. Well, Senator, I do agree with you completely, because what you are saying is a point that I have made many times in other connections. It is that we seem to, and we should not, put enormous restraints on our own ability to defend ourselves in the most effective way possible.

Just for one example, as you know, we are not allowed even to test an anti-satellite system, even though the Soviets have one deployed. And this is not a kind of restraint that the Soviets put on themselves in this situation with strategic defense.

They have not put any restraints on themselves, and it is important that we do just what you said, and that is to try to develop the most effective system or systems. I think the most effective, best way we can work together would be for us, as we try to do in all of our briefings, to lay out frankly and clearly the progress that we are making, the fact that there may well be more than one method of destruction of Soviet missiles, and show that what we are trying to get is obviously the most cost effective, useful kind of system.

And in defining cost effectiveness, you cannot use economic terms when you are talking about protecting continents and all of the people within them.

Again, we have our research going on four or five different fronts at once. We should share that with you, as we do, and we will be glad to do it in greater detail. As we get to the ability or the possibility of deploying one or more of these systems, we should, of course, share that with you.

We should see if there are indeed real legal constraints that prevent that, and if there are, if there are ways of trying to deal with those. And under the ABM Treaty, you and your colleague from California have indicated that the treaty itself provides for ways of changing and enabling us to change it, to enable us to take the course that is most consistent with the national security.

The fact that these things have changed since 1972 should not be a permanent bar to our working on it. It is essential to keep in mind the goal and the vital necessity of that goal, and that goal is nothing more nor less than to take those steps which best preserve our peace and our freedom for the future, and that is what we are trying to do.

And so what we should do with strategic defense is try to develop it and deploy it as quickly as possible, in the most effective way possible, and in a way that is consistent with our legal obligations. And I think we are doing that.

If we do not do that—if we decide that that is too provocative or will not enable us to sit down and discuss the possibility of another reduction or some kind of real reduction in arms, then we are playing into Soviet hands and helping to enact the Soviet agenda.

There are lots of ways we can and should work together, and mostly, the most effective one is for us to let you know the progress we are making and the very real ability that we are now seeing on the horizon of being able to deploy such a system in comparatively early terms.

Senator **Quayle**. Did you anticipate——

Chairman **Nunn**. Excuse me, Senator Quayle. We have a time problem because the Secretary has to leave and we have three other members to ask questions. I think your time has expired.

Senator **Quayle**. I was just going to ask one quick follow-up.

Chairman **Nunn**. I would just like to complete one round of questions, and then if we have time left we can come back for a second round.

I believe Senator Kennedy was next.

Senator **Kennedy**. Thank you, Mr. Chairman, and Mr. Secretary.

READINESS AND SUSTAINABILITY

Mr. Secretary, in 1986 you projected certain vital needs for 1987 when it came to readiness and sustainability. You made similar projections in 1987 for the 1988 budget. For all these accounts, the actual requests for fiscal year 1988 are significantly lower than the levels that had been projected as being needed to meet our vital requirements.

For example, for 1988 the Army's spare parts request is 23 percent less than what had been projected as being necessary just the previous year. The same is true for other accounts. We are down 32 percent for Army support equipment, down 37 percent for Navy support equipment, down 33.5 percent for Air Force spare parts, and down 36 percent for Air Force support equipment.

And so what are we to think about your request for these accounts for 1988, that your projections last year were not accurate as to what was really needed or what we are now shortchanging these accounts to pay for the sophisticated weapons systems, some $11 billion over the next 2 years in terms of the Star Wars systems, or aircraft carriers, some $7 billion over the next 5 years?

Secretary **Weinberger**. Senator, if you are saying we received less money than we should have, you are absolutely right.

Senator **Kennedy**. I am saying you are requesting less than you gave in terms of projections. You laid out what was essential in terms of our security for these particular functions in prior years, and yet they received dramatically reduced funding in the actual fiscal year 1988 request by your Department. The readiness and sustainability accounts were cut percentagewise more than other accounts.

That is what I am saying.

Secretary **Weinberger**. No. We have a lot of needs and a lot of priorities. Many of them are basically level priorities, they are basically equal. If there are severe reductions in the amount of money we requested from the Congress, a lot of very good, necessary programs are going to suffer. That is what has happened.

That is what we said would happen. That is what has happened.

Senator **Kennedy**. That is not the point. The point that I would make is that funds seem to be unlimited with regard to gold-plated weapons systems, but areas that are key in terms of sustainability and readiness and preparedness are shortchanged. You find that sustainability and readiness accounts have gotten a heavy meataxe approach, where it seems fairly obvious that in other systems it seems that you are quite prepared to make very dramatic and sizable additional requests.

Secretary **Weinberger**. Well, Senator, you will find in many cases the reductions in 1987 from our request were specifically instituted and required by the Congress. In 1988, because of the lowered funding in those earlier years, we were not able to make the kind of showings that we felt was essential, but we have many priorities.

And when our total funding, our top line, is reduced as sharply as it was in 1986 and 1987, yes, then we are going to have to get less things than we urgently need. That is just exactly the point we made to the Congress at the beginning, that if this is not fully funded a lot of very good things will suffer.

You referred to some of these weapons systems as gold-plated. I think that is not a very useful way of describing our utilization of the high technology that still gives us a lead in some small areas.

Senator **Kennedy**. Well, Mr. Secretary, I had the opportunity to spend a day, a night and a day, on an aircraft carrier, the *Teddy Roosevelt,* and I met with a number of the sailors there and we had a pretty good rap session.

And you know the problem very well, better than anyone, about the difficulty in retaining Navy flyers. These sailors talked a good deal about the failure to keep pace with moving expenses, various medical programs as being inefficient and expensive, the failure to make available day care facilities for many of the married personnel on many of these bases, and the fact that many of those that go to sea are being short-changed over those that stay ashore because they're losing their housing allowances. In other words, it pays to stay ashore rather than go to sea.

I must say that I thought that the morale of the personnel on that ship was first rate, that their training was superb, and that they have a very great sense of dedication. But no one could listen to these kinds of observations without feeling a very strong warning as to what we are going to expect in terms of the re-enlistment rates or whether we are going to be able to retain those kind of skilled personnel.

Again, in looking through the various budgets, it seems that we are prepared to spend sizable amounts in terms of weapons systems and shortchange the personnel. I am interested in your general reaction to the problem.

Secretary **Weinberger**. Senator, we could not agree more. The morale is high and the training is excellent. There are certainly—there is no doubt that when the top line of the defense budget is cut as severely as it was in the last 2 years, a lot of very good things have to suffer.

We still have close to 50 percent of our budget for personnel and other benefits. And when we do have cuts made, particularly when cuts in outlays are demanded because the personnel budget spends more rapidly than anything else, all of these things do have some reductions and suffer some.

I would be delighted to join with you in adding to our supplemental to restore a lot of these things for 1987.

Senator **Kennedy**. My time has expired. I would just ask, Mr. Chairman, if we could have available to the committee the Defense Department's response to the CBO analysis of what the cost for the aircraft carriers would be. Could we——

Secretary **Weinberger**. We have all of that right here. We would be delighted to turn it over.

Senator **Kennedy**. Well, I do not think—have you got an answer to the CBO analysis that says that your figures are basically, I suppose, not accurate?

Secretary **Weinberger**. Well, I'm not aware of any CBO finding of that.

Senator **Kennedy**. Well, I will give it to you.

Secretary **Weinberger**. We would be glad to respond to anything you give us, and I think you should know that the outlay effect of the two carriers in fiscal year 1988 is $6 million.

Senator **Exon** [presiding]. I would think it would be proper, Senator Kennedy, for you to phrase the question the way you will, and then ask. The Secretary has indicated that he would respond.

We have to get the Secretary out of here. Has everyone had their first round? I believe they have. I am willing to forego it if we can, because I think we should accommodate both the Admiral and the Secretary, who have to leave.

Did you have any other questions?

Senator **Wilson**. Mr. Chairman, I do, but I will be happy to submit them for the record. But there is one that I would like to state, and I can state it very quickly.

Your closing response to Senator Quayle, Mr. Secretary, said that you would be happy to not only work with the Congress, but also felt the necessity that we let the public know that progress was being made overall in the area of the Strategic Defense Initiative.

I heartily second that. I would add to it one thing that I think is of paramount importance. I think the American people are entitled to know what kind of progress the Soviet Union is making in its Strategic Defense Initiative program, and I do not think they have the remotest concept.

Secretary **Weinberger**. The latest edition of our Soviet Military Power book will be out in March, and it will cover a great deal of that, Senator.

Senator **Wilson**. With that, Mr. Chairman, I would submit for the record a question on Army combat structure, and ask that it be answered for the record.

Thank you, Mr. Secretary, and thank you very much, Admiral.

Senator **Levin** [presiding]. Everyone has had a chance for a first round. If so, the Secretary must make a meeting with the President. I think we have agreed once everybody had a first round that we would save the balance of our questions for the record.

If there is no objection, we will keep the record open for 48 hours. Can we do that for both of you? And thank you for coming.

Secretary **Weinberger**. Thank you very much, sir.

[Questions for the hearing record with answers supplied follow:]

Questions Submitted by Senator Carl Levin

SDI TESTING FUNDS

Senator **Levin**. Is there funding in the fiscal year 1988 SDI budget request for any experiment or test that would violate the narrow interpretation of the ABM Treaty? If yes, please supply me with a list of them, and the funding requested for each.

Secretary **Weinberger**. No funding for experiments not complying with the narrow interpretation is contained in the fiscal year 1988 budget.

ABM TREATY INTERPRETATION

Senator LEVIN. If the broad interpretation of the ABM Treaty were operationally adopted by the United States, when would an ABM system or component first be tested or developed in violation of the narrow interpretation of that treaty, and what would that first system or component be?

Secretary WEINBERGER. This and other related issues are addressed in the Defense Department's "A Report on the Anti-Ballistic Missile Treaty," required by section 217 of the fiscal year 1987 Authorization Act. According to that report, if the SDI program were restructured to be consistent with the broad interpretation of the ABM Treaty, the first activities that could occur that would not be consistent with the restrictive interpretation would be the Thor system exploration experiments. With proper funding early planning, these experiments could begin in late [deleted].

SOVIET ABM TESTS

Senator LEVIN. Were the Soviets to operationally adopt the broad interpretation of the ABM Treaty, would we be able to adequately verify that the Soviet ABM tests were based on "other physical principles"?

Secretary WEINBERGER. In a general sense, the Soviets take the broadest possible interpretation of treaties, including the ABM Treaty, in order to maximize their programmatic options. We know that the Soviets have conducted research, development and testing of laser weapons, particle beams, and kinetic energy weapons since the 1960s. [Deleted.]

Senator LEVIN. How would Soviet adoption of the broad interpretation of the ABM Treaty affect Soviet capability to break out of the ABM Treaty in a militarily significant manner in the next 10 years?

Secretary WEINBERGER. As Judge Sofaer, State Department Legal Advisor, has pointed out, the ABM Treaty negotiating record clearly indicates the Soviets maintained the right to observe the broad interpretation. Under the broad interpretation, the Soviet Union, like the United States can be in a position to develop effective defenses earlier than under the restrictive interpretation. With both countries conducting their strategic defense programs in this fashion, we would more quickly arrive at the day when the United States and Soviet Union could engage in a jointly managed transition to strategic defenses.

U.S. ABM COUNTERMEASURE PROGRAMS AND FUNDING

Senator LEVIN. Please supply me a summary of current and planned U.S. ABM offensive countermeasures programs and funding. How would such programs be affected by Soviet testing and development of new ABM systems or components which would violate the narrow interpretation of the ABM Treaty, but comply with the broad interpretation?

Secretary WEINBERGER. For the near term, the Air Force is conducting a program to develop passive decoys and chaff for 50 Minuteman III ICBMs. The administration has requested $79 million in fiscal year 1988 for this purpose. For the longer term, the administration has requested $134.2 million in fiscal year 1988 to conduct research on active decoys and evader MARVs.

Ultimately, the most effective response to the Soviet Union's ongoing ballistic missile defense effort—as well as the continuing build-up of their ballistic forces—is our own strategic program.

SAVINGS DUE TO ABM TREATY

Senator LEVIN. Please supply me a report detailing any savings of time or money achievable through the operational adoption of the broad interpretation of the ABM Treaty.

Secretary WEINBERGER. The full details on this subject can be found in the Defense Department's "A Report to Congress on the Anti-Ballistic Missile Treaty," required by Section 217 of the fiscal year 1987 Authorization Act. Briefly, restructuring the SDI program according to the broad interpretation of the ABM Treaty would save 2 years in the research program and $3 billion.

BROADENING INTERPRETATION OF ABM TREATY

Senator LEVIN. What do you consider the risks with respect to the administration broadening of the interpretation of the ABM Treaty?

Secretary **Weinberger**. I do not see any net risks to adopting the broader interpretation of the ABM Treaty, since this would have a very beneficial effect on the progress of the SDI program.

SOVIET OFFENSIVE AND DEFENSIVE RESPONSES

Senator **Levin**. Have the Joint Chiefs been asked to conduct, or are they conducting, a study of the likely Soviet offensive and defensive military responses to U.S. operational adoption of the broad interpretation of the ABM Treaty? If not, why not?

Admiral **Crowe**. Although not driven specifically by ABM Treaty issues, the Organization of the Joint Chiefs of Staff recently initiated a study to assess the impacts of a rapid build-up in Soviet ballistic missile defenses. To support the study, the Defense Intelligence Agency has been asked to characterize likely Soviet responses to US adoption of an interpretation of the ABM Treaty which would allow testing SDI systems in space.

FIVE-YEAR FUNDING PLAN FOR AIR DEFENSE INITIATIVE

Senator **Levin**. What is the 5-year funding plan for Air Force's Air Defense Initiative?

Admiral **Crowe**. The Air Defense Initiative (ADI) contains Navy as well as Air Force funds. The Air Force funds, by Program Element, are shown below.

[In millions of dollars]

Program element	1988	1989	1990–92
63368F	17.1	35.8	177.8
63369F	13.2	35.0	179.5
63716F	8.7	1.6	0.0
63738F	85.7	138.9	631.0
Total	124.7	211.3	988.3

DECISION TO ABANDON SALT II LIMITS

Senator **Levin**. What offensive steps would you take if you were the Soviet Chief of Staff in response to a limited U.S. SDI deployment which was unaccompanied by air defense improvements such as envisioned in the ADI program?

Admiral **Crowe**. Offensive countermeasures that the Soviets should be expected to explore as they attempt to negate the effectiveness of an SDI deployment include: [Deleted.]

One should recognize, however, that use of cruise missiles would not allow the Soviets to regain the first strike capability denied them by an SDI-type defense. Moreover, many of the specified countermeasures represent significant technological challenges for the Soviets to develop and deploy with the required quality and quantity necessary to penetrate a multilayered strategic defense system.

Senator **Levin**. What are the military consequences of limited SDI deployment without concurrent ADI deployment? What offensive steps would you take if you were Soviet Chief of Staff in response to a limited U.S. SDI deployment which was accompained by air defense improvements such as envisioned in the ADI program?

Admiral **Crowe**. The consequences of a limited SDI deployment without a concurrent ADI deployment would depend upon the effectiveness of the existing Soviet air defense capability. If the United States bomber force could be expected to continue to penetrate effectively Soviet airspace, then a ballistic missile defense without an accompanying air defense would result in a substantial increase in deterrence and stability. If the U.S. bomber force could not be expected to penetrate effectively, then it would be appropriate to deploy some level of air defense with a ballistic missile defense in order to maintain a balance between U.S. and Soviet strategic capability.

The response a Soviet Chief of Staff would recommend would depend upon his perception of the effectiveness of the U.S. defenses. In the face of effective defenses—those that convey meaningful military capability and that cannot be easily overcome by technical countermeasures—the recommendation the Chief of Staff would likely make would be that the Soviets maintain a similar deployed defensive capability while limiting the offensive response to one of research and development. There is also an increased likelihood that the Soviets would seek arms control measures that would codify the new strategic relationship with the United States. This is precisely the outcome the United States is seeking.

Senator LEVIN. What was the JCS understanding in 1972 of the ABM Treaty prohibitions on testing, development, or deployment of ABM systems or components which are sea-based, air-based, space-based or mobile land-based?

Admiral CROWE. Members of the Joint Chiefs of Staff addressed this question in testimony before the Senate Armed Services Committee in the summer of 1972. General Ryan, then Chief of Staff of the Air Force, stated: "My interpretation of the paragraph [Article V, paragraph 1, ABM Treaty] . . . is that each party undertakes not to develop, test, or deploy ABM systems or components which are sea-based, air-based, meaning in the atmosphere, space-based, outside of the atmosphere, or mobile land-based . . . it doesn't mean that fixed, land-based cannot be developed."

QUESTIONS SUBMITTED BY SENATOR JOHN GLENN

B-1B STATUS

Senator GLENN. Have there been any changes in the status of the B-1B program since January 27th that would cause Chairman Aspin to make such a statement? Why do you believe he made such a statement? Is the Department of Defense providing different information to the House Armed Services Committee?

Secretary WEINBERGER. No, the current B-1B fiscal year 1988/1989 budget request includes $595 million for the baseline weapon system. The additional $207M supports proposed enhancements beyond the scope of the certified $20.5B (fiscal year 1981) program. We are confident that with full support of the baseline funding request, no additional development moneys will be required. If the request is fully honored, the program will be funded at $20.2B (fiscal year 1981), well within the certification. We are working hard to execute the program at this funding level and are optimistic that the program has sufficient procurement funding to cover over-target performance and other contract contingencies. Larger estimates recently circulated must assume enhancement outside the scope of the baseline $20.5 (fiscal year 1981) program. The Air Force has been consistent and clear on the information it has provided to Congress.

QUALITY PERSONNEL

Senator GLENN. Admiral Crowe, you as well as the other Chiefs and each of the combatant commanders testify each year that our most precious military asset is quality personnel. As you testified earlier this year, they are "the cornerstone of our military establishment."

From the looks of the data in the Military Personnel Indicator Chart provided in Secretary Weinberger's prepared statement, we have been doing something right over the last 5 years as far as manpower is concerned.

For example, the chart shows that:

—In 1986, 92 percent of all recruits entering the service were high school graduates—up 35 percent from 1980.

—First term reenlistments are up 29 percent and career reenlistments are up 20 percent over 1980.

I can't think of a better force multiplier than recruiting and keeping good men and women in our armed forces.

My question is, what is your assessment of how we have achieved these improvements in recruiting and retention—and how do we sustain or improve this record?

Admiral CROWE. In large part, the services have been able to achieve outstanding recruiting and retention results through continued congressional support in two key areas. First, congressional support in pay, education, medical/dental benefits, and other quality of life programs has played an important role in improving the image of the Armed Forces and in attracting and retaining quality people. Second, budget support for recruiting incentives and resources has allowed the Services to aggressively pursue accessions programs to build a quality force. Congressional support in these areas has helped the services recover from the severe recruiting and retention problems of the mid-to-late seventies. During the next decade, because of changing youth demographics, declining youth employment, and an improving economy, the services will be faced with a difficult recruiting and retention challenge. However, with continued Congressional support in pay, benefits, quality of life programs, and recruiting resources, the Services should be able to satisfy their manpower requirements with high quality recruits in the future.

Senator GLENN. In your role of trying to balance the conventional modernization requirements of the combatant commands with those of the individual service R&D requirements for follow-on weapons systems, I would like to ask both of you to comment on the rationale you followed.

In your prepared statement, Admiral Crowe, you indicate (as you did last year) that we are "only in mid-stream in the conventional force modernization process." You state that by the end of fiscal year 1987 the status will be:

—About 25% of the Army's active mechanized battalions and about 40% of its tank battalions will be re-equipped with the Bradley Fighting Vehicle and M1;

—From 50% to 65% of our tactical air wings will have received new fighter/bombers;

—Some five out of fifteen carrier battle groups will have AEGIS; and

—About 36% of our submarine force will be operating basic or improved versions of the 688 Class attack submarine.

In spite of this situation, a review of the services' budget submissions for fiscal year 1988–89 indicate a clear slow down in most of these modernization programs including the M-1, Bradley, Apache Helicopter, most tactical aircraft and 688 class submarine.

Conversely, all of the services appear to be pressing forward at full speed with the next generation of conventional weapons systems such as AFT, ATA, LHX, and SSN-21. This in spite of the fact that many of the existing systems that these new programs would replace are still under production, and in addition, will undergo major upgrade programs (F-15E, A-6F, 688 upgrade).

It appears to me that we are proceeding too rapidly to the next generation of several major conventional weapons systems at the expense of our current modernization program.

I am not questioning the requirement for these new systems at this point, but given the fiscal realities, I am questioning the timing of them.

Admiral CROWE. We believe that we are proceeding at a reasonable pace in maintaining our conventional force modernization program and balancing it with the next generation of conventional weapons systems that will meet the future threat. We must be careful not to mortgage modernization at the expense of RDT&E or the converse. That is to say, our ongoing modernization program is designed to sustain and improve our deterrent and warfighting capabilities today, while the emphasis on RDT&E contributes to ensuring that we maintain a qualitative edge over our opponents into the next century. Thus, we can exploit a competitive strategy of technologic advances wherein our adversaries must devote resources to countering that advantage.

The design, testing, and acquisition of weapons systems, particularly those with sophisticated technology, require long lead times (7–12 years). It is not possible to stop the production of a weapons system currently used in the force structure and replace it with another of greater capability without a transition period. Rather, new weapons systems must be phased in. The nature of RDT&E capital investments and time therefore, requires us to continue our current efforts.

For example, it is intended that the LHX will eventually replace the Army's utility and reconnaissance helicopters. These older helicopters, however, will continue to be used until the LHX can be fully incorporated into our force structure. Similarly, the F-15E provides low altitude penetration and delivery of air-to-ground conventional and nuclear weapons. ATF, as a follow-on to the F-15E and other fighters will counter the emerging Soviet fighter technology and will have technological capabilities beyond what our current fighters have in survivability, supportability, and lethality.

In a constrained budget environment we cannot procure all the weapons systems we need to modernize and upgrade our forces. However, we must recognize that technology advancements require us not only to maintain and improve our current weapons systems but to invest in weapons systems that will give us greater capabilities in the future. It is a low cost investment insuring against the uncertainty of future conflicts.

CONVENTIONAL FORCE MODERNIZATION

Senator GLENN. In your role of trying to balance the conventional modernization requirements of the combatant commands with those of the individual services R&D requirements for follow-on weapon systems, I would like to ask both of you to comment on the rationale you followed.

Secretary WEINBERGER. We place high emphasis on conventional force modernization requirements. But, let me emphasize that R&D and modernization are not mutually exclusive. They go hand-in-hand. Modernization is the result of R&D.

Now as to how we deal with the CINCs requirements and the service requirements. The services have a strong role in the PPBS, meaning resource allocation system. The role of the CINCs in this process recently has been expanded. All elements competing for resources receive many hearings culminating in a hearing by the Defense Resources Board. Priorities are judged and funded accordingly.

QUESTIONS SUBMITTED BY SENATOR STROM THURMOND

EARLY INTRODUCTION OF COMPONENTS OF SDI PROGRAM

Senator THURMOND. Numerous statements have been made and reported by the media during the last few weeks concerning accelerated testing and introduction of components of the Strategic Defense Initiative (SDI) Program. What specific time frame is being considered to accomplish this goal, and what impact will this have on military strategy and the fiscal year 1988/89 budget?

Secretary WEINBERGER. The technological successes which we have seen in the SDI research have led us to be reasonably optimistic regarding the feasibility of strategic defenses. We are close to being able to identify certain technologies—though we are not able to do that now—that would permit us to begin to develop the first phase of a complete defense system. In order for us to assess the impact on military strategy and future budgets over the next two to three years we must complete the basic research required to support an informed decision on strategic defenses.

Senator THURMOND. The fiscal year 1988/89 budget request reflects the early start of 2 aircraft carriers with the concurrent reduction of aircraft procurements, aircraft spares and modifications, and a reduction in naval ship overhauls. What will be the impact on overall readiness and naval strategy, especially when compared with last fiscal year authorizations?

Admiral CROWE. These two aircraft carriers are not intended to supplement current force levels, but to replace two of our present ships as they approach the age when repair and equipment updates required to meet current threats become economically infeasible. Carrier acquisition takes approximately 8 years. A review of this process revealed that by providing long lead funding for two new *Nimitz*-class CVNs, the Navy could save an estimated $3 billion over the amount required to achieve replacement carriers in the previously planned and programmed ship acquisition plan. This new approach will level out the peaks and valleys in the shipyard work force, as well as in the procurement of steel and components, caused by the previously approved plan.

A balanced force of 15 aircraft carriers is the core element of this administration's commitment to maintaining the maritime superiority necessary to fully execute our national strategy. We cannot hope that our older carriers will remain indefinitely capable of meeting the changing threat posed by the Soviet fleet. U.S.S. *Midway,* commissioned in 1945, will be 52 years old when retired from active service, under the current procurement strategy, and the follow on *Forrestal*-class carrier will be over 45 years old at retirement in 1999. An aging carrier force beyond 45 years old means marginal warfighting capabilities, escalating maintenance cost, and increased time for ship repair.

The planned aircraft procurement profile to meet projected requirements is on track and has not been mortgaged to pay for CVNs 74/75. In fiscal year 1995 the Navy will have a projected inventory of 2321 carrier aircraft to fill the 1306 requirement for 14 active and 2 reserve airwings as planned. This allows the Navy sufficient tactical aircraft to manage attrition, pipeline, and depot maintenance requirements and fully outfit 15 carriers.

To summarize, the overall requirement to replace our aging carriers is not new; just the timing and procurement strategy have changed. Fiscal constraints demand that we find ways to optimize the Navy's topline spending. These two replacement carriers will be carbon copies of U.S.S. *Nimitz* with no changes except those that are cost reducers benefiting from advanced technology. This revised procurement strategy has little or no negative impact of readiness or strategy. Their inclusion in the fiscal year 1988/89 budget will provide timely replacement carriers by the end of the century and will lead to improved readiness and ability to execute our national strategy.

QUESTIONS SUBMITTED BY SENATOR WILLIAM S. COHEN

GLOBAL WAR COMMITMENTS

Senator COHEN. Admiral Crowe, the Navy argues that the global wartime commitments inherent in the U.S. national military strategy and the maritime strategy require 15 deployable carrier battle groups to carry out the CINC's operational plans. How was that number arrived at? What do you see as the alternatives if we do not maintain the 15 deployable aircraft carrier force level?

Admiral CROWE. A succinct statement of our national security strategy has been provided to Congress by the President. That strategy sets forth specific national interests and objectives designed to foster the nation's security, economic well-being, and to bolster an international order supportive of the vital interests of this country and its allies. Maritime strength plays a prominent role in our national security strategy. As an island nation and senior partner in a global alliance system, we must have strong naval forces capable of supporting these national objectives. As the President noted in his national security strategy statement:

"Maritime forces play a unique role in supporting our military strategy. Given the realities of our geostrategic position, fronting on two oceans, maritime superiority is vital to support our alliance relationships and our forward deployed forces.

Maritime superiority enables us to capitalize on Soviet geographic vulnerabilities and to pose a global threat to the Soviet's interests. It plays a key role in plans for the defense of NATO allies on the European flanks. It also permits the United States to tie down Soviet naval forces in defensive posture protecting Soviet ballistic missile submarines and the seaward approaches to the Soviet homeland, and thereby to minimize the wartime threat to the reinforcement and resupply of Europe by sea.

Essential to our wartime strategy, maritime superiority plays equally vital roles in peacetime. Mobile maritime forces, easily deployed in time of crisis, are a traditional symbol of our nation's will and capability to defend its vital interest."

Our national security strategy cannot be executed without maritime superiority which is relevant across the entire spectrum of possible conflicts with the Soviet Union. Maritime superiority is epitomized by this administration's long standing goal of a 600-ship Navy centered around 15 deployable carrier battle groups, four battleship battle groups, 100 attack submarines, adequate numbers of ballistic missile submarines, and sealift to support an assault echelon of a Marine Amphibious Force and a Marine Amphibious Brigade.

To achieve our strategic objectives, we need maritime capabilities which are at once global, forward deployed, and—with our allies—superior to probable opponents. This compels us to deploy a 600-ship Navy. In peacetime, we deploy to the same places we must control in war, but at one-third the tempo of operations. This allows a bearable peacetime burden of six-month deployment lengths and 50 percent time in homeport. Looked at either way, we require the same size fleet to meet peacetime deployments as we do to fight a global war.

The fleet today reflects the practical wisdom of the deck plates, the theoretical development of the labs, and lessons learned from past exercises and combat experiences. Of course, there are many kinds of ships not in the fleet today that could serve us very well. The British *Invincible* class vertical or short take-off and landing (V/STOL) carriers, for instance, are quite capable anti-submarine warfare ships. There are many attractive European frigate designs. There are also diesel submarines in the navies of our friends that fulfill very effective roles. If our allies around the world were not buying these vessels, the burden would fall upon us. But happily, they are carrying a considerable share of the cost of naval defense and, therefore, American taxpayers do not have to fund a larger Navy.

The military actions of the past year clearly indicate the benefits of high technology forces. The three exercises we held in the vicinity of the Gulf of Sidra and the joint Navy-Air Force strike against Libya were all conducted under the most demanding, restrictive, and difficult conditions of peacetime crisis management.

There is serious ongoing debate concerning the issue of large versus small carriers. The Navy's and the Joint Staff's review of alternatives to the *Nimitz*-class carrier and the large/small deck carrier mix question continues but to date has produced no viable alternatives. The sophisticated technology of modern weapons and delivery systems makes everything vulnerable to a degree. But large deck carriers are the least vulnerable and most survivable ships we have along with our recently refurbished battleships. Their speed and maneuverability make them far less vulnerable than a land base which can't move at 31 knots and far less vulnerable than any other class of ships and provides a power projection capability independent of foreign bases which cannot be duplicated by any other means. While smaller ships have far less protection against incoming threats, and while a single hit by a Soviet cruise missile can put a smaller ship out of action, the large carrier can bring into play a far greater array of defenses to prevent itself from being hit. If it does get hit, its greater size, greater degree of watertight compartmentation, greater damage control resources, and other survivability features enable it to absorb several such hits under most circumstances and continue to carry out its mission. The Soviets have gotten the message and now are entering the large deck carrier competition.

In summary, the only answer I can give you, at present, regarding alternatives is that alternatives, previously discussed, entail a greater degree of risk both for global and regional wars.

STRATEGIC DEFENSE DEPLOYMENTS

Senator COHEN. Mr. Secretary, the President, in his recently released report, National Security Strategy of the United States, states: "In judging the suitability of (strategic defensive) systems for possible deployment, we will continue to be guided by the criteria of military feasibility, survivability, and cost effectiveness at the margin." Do you agree with the President that any strategic defense deployments must be cost-effective at the margin and survivable?

Secretary WEINBERGER. Absolutely. The basic requirements which have been established for a strategic defense system are that it must be militarily effective, adequately survivable, and of a nature so that it is able to maintain its capability more easily than countermeasures could be taken to defeat it. The last consideration is couched in terms of cost-effectiveness, but it is much more than an economic concept.

SBKKV REQUIREMENTS FOR MID-COURSE

Senator COHEN. Mr. Secretary, the Report to the Congress on the Strategic Defense Initiative which you submitted last June states (p. VI-5):

Space-based kinetic "kill vehicles are required to attack essentially all boosters and reentry vehicles (RVs) in midcourse if the RVs are unaccompanied by large numbers of penetration aids."

Recent press reports indicate that the Space-Based Kinetic Kill Vehicle program has been altered to reduce its requirements and accelerate its schedule. In particular, The New York Times reported (2/10/87, 2/11/87) that the space-based kinetic kill vehicle will not contain the long-wave infrared sensor intended for mid-course intercepts and defense against anti-satellite weapons. Today's Washington Post reports that the Director of the Kinetic Energy Weapons program office, Col. Raymond Ross, essentially confirms this.

Is the SDI Organization pursuing a space-based kinetic kill vehicle that lacks the long-wave infrared sensor which was intended for mid-course attack on Soviet RVs? If so, why has this "required" capability been altered and has this change permitted the acceleration of the Space-Based Kinetic Kill Vehicle program?

Secretary WEINBERGER. Requirements for an SBKKV system have not changed. The system is expected to intercept Soviet ICBM's in the boost, post-boost, and midcourse phase and to defend itself against possible ASAT attack. What we have done is prioritize the importance of the threat targets, emphasizing booster kill and survivability. The ground launched ERIS missile is our primary defensive weapon in the midcourse phase and is expected to work with the SBKKV constellation in handling these targets. Because of this overlap and the applicability of ERIS test results to the definition of the SBKKV vehicle, less emphasis is needed on specific development and testing for this midcourse role within the SBKKV project. The LWIR sensor has not been dropped from the KKV design. A dual mode seeker (MWIR/LWIR) is still an SBKKV requirement in the final configuration. Initial testing which emphasizes booster intercepts can be done without the addition of an LWIR sensor and so it makes sense to conduct these early tests without this specific wavelength sensor. It can be added on a later configuration.

SDI RESEARCH

Senator COHEN. Mr. Secretary, at a 11/25/85 hearing of this committee, the State Department's Legal Counsel, Judge Abraham Sofaer, testified in a written response for the record that: "The President has affirmed that he intends to pursue the SDI research program as currently structured, which is consistent with the 'restrictive' interpretation. Should a future Administration seek to implement the broader interpretation, the Congress would have a voice in that decision." Do you agree with that the Congress must be involved in any decision to implement the broad interpretation?

Secretary WEINBERGER. I believe the President has stated that he will consult with the Congress regarding the ABM Treaty and the legally correct interpretation. I fully support that decision.

QUESTIONS SUBMITTED BY SENATOR DAN QUAYLE

OPERATIONAL CRUISE MISSILE IMPROVEMENTS

Senator QUAYLE. Operational Cruise Missile Improvements—The Pentagon has five basic variants of cruise missiles currently operational in the Air Force and Navy—ALCM, GLCM, TLAM-N, TLAM-C and TASM. The total value of these programs is over $20 billion. Would you support life extension/modernization programs for these weapon systems such as CMAG, GPS navigational update, improved fuels, stealth kits and the like if they prove to be cost effective?

Secretary WEINBERGER. We are looking at ways to extend the life of cruise missiles and make block changes in the guidance hardware. We have also established a technology steering group to evaluate potential military application for advanced cruise missile technologies and to oversee technology demonstration and development. In a parallel effort, we have chartered a Defense Science Board Summer Study to evaluate the technological and operational utility of near zero CEP cruise missiles. These dual approaches should allow us to assess the real requirements and provide for the most cost effective way to meet those requirements.

ATBM/SDI

Senator QUAYLE. Our European allies believe that if we pull our Pershing II's and GLCM's out of Europe in exchange for a Soviet pull back of the SS-20 system, they will still be faced with an array of conventional and nuclear capable shorter range ballistic missile systems (e.g. the Scaleboards, the Scuds and the Frogs along with the newer SS-21's, 22's and 23's) and new ATBM-capable air defense systems (e.g. the SA-10 and SA-12). Do you share their concern about this potential shorter-range asymmetry? What role might an ATBM system play to mitigate this concern?

Secretary WEINBERGER. We share the concern of our Allies regarding the threat posed to them by Soviet tactical ballistic missile forces, especially the newer, more capable systems (SS-21, SS-23. SS-12 Mod 2). Presently, there is no active defense against this threat and I believe it is imperative that we, in close cooperation with our Allies, proceed toward developing an integrated NATO anti-tactical missile defense.

JOINT CRUISE MISSILE DEVELOPMENT EFFORTS

Senator QUAYLE. Joint Cruise Missile Development Efforts—All of the cruise missile weapon systems presently operational for the Air Force (ALCM and GLCM) and the Navy (TLAM-C, TLAM-N and TASM) were developed in a very efficiently managed joint Air Force/Navy office—the Joint Cruise Missile Program Office (JCMPO). Yet the Navy and the Air Force recently elected to go their own separate ways to develop advanced cruise missiles and improvements. In light of recent emphasis on joint service efforts and organizational changes, do you believe this is the most cost-effective approach for advanced cruise missile development?

Secretary WEINBERGER. Development of the present Air, Ground and Sea Launched Cruise Missiles was placed under responsibility of a Joint Cruise Missile Project Office in 1977. Rationale for such responsibility was based on the high degree of commonality of these systems, specifically regarding power plant hardware and guidance elements.

As a particular system has attained operational capability and production approaches termination, program responsibility has been assumed by the specific service. Such transfer is appropriate since integration of weapons systems into the service operational and logistical support infrastructure requires individual service management responsibility.

Should future programs possess the degree of commonality associated with the first generation cruise missiles, joint management would certainly be appropriate.

Senator QUAYLE. At a January hearing of the Armed Services Committee, Admiral, you stated that to meet a mid-1990s SDI deployment, that we "would have to make a decision in months. . ." as to the path or roadmap we need to pursue to get there. Do you still stand by this statement?

Admiral **Crowe**. I believe my answer was given in the context of an early deployment decision. A decision to deploy SDI in the early 1990s would represent an adjustment to the current SDI program objective which now is structured to provide research in support of a Full Scale Engineering Decision in the early 1990s. Accordingly, to support an early decision to deploy, it would be prudent to determine, in the coming months, the required changes to the plan of action resulting from this new objective.

Senator **Quayle**. Given the large conventional force imbalance in key theaters where we might fight, how important would it be in a conventional war for us to be able to hold Soviet low-earth orbit satellite systems at risk with our own ASAT? Is that the reason why the Soviets have an operational ASAT targeted against our low-earth orbit satellites?

Admiral **Crowe**. An operational U.S. ASAT capability is vital to place at risk or deny Soviet space capabilities for intelligence, reconnaissance, communications, and near-real-time targeting of U.S. and allied forces. An operational U.S. ASAT would contribute to offsetting Soviet superiority in conventional forces by ensuring a U.S. capability to deny the enemy free access to space. Lastly, an operational U.S. ASAT would serve as a strong deterrent against Soviet use of its ASAT system. Should deterrence fail, an ASAT capability would allow response in kind rather than vertical or horizontal escalation of conflict.

Soviet targeting of U.S. low-earth orbiters may reflect current Soviet strategic thinking. The Soviets view space as simply another military arena where superiority must be gained and maintained. Unilateral Soviet use of a coorbital ASAT could deny U.S. and allied use of and assured access to space, while leaving Soviet space systems free to provide support for Soviet combined air, land, and sea operations. Such action would lead to critical voids in U.S. and allied [deleted], communications, navigation [deleted], and weather information over the battle zone and other key areas of interest. Concurrently, U.S. and allied operations would be placed at greater risk by being exposed to Soviet satellites.

Senator **Quayle**. If we couldn't eliminate the Soviet low-earth orbit satellite systems we needed to early in a conventional conflict in Europe, wouldn't this increase the likelihood of a Soviet conventional victory in that theater and, thus, make NATO's early resort to nuclear weapons more likely as well?

Admiral **Crowe**. Currently, the problem is that the Soviets maintain a fairly robust ASAT system to put at risk our low-earth orbit satellite systems and we have no similar operational capability. Given this imbalance the Soviets could retain their reconnaissance and intelligence capabilities to target U.S. ground, naval, and air systems in near-real-time and/or real-time after eliminating our systems. Soviet space systems would, therefore, act as a force multiplier by significantly increasing U.S. and allied vulnerability. The capability of U.S. and allied forces to satisfy current doctrinal concepts of forward deployed forces would also be placed in serious jeopardy. Soviet coorbital ASAT use would also deny the U.S. critical indications and warning elements. This situation could afford the Soviets an increased capability to achieve and maximize breakthroughs of U.S. and allied defensive lines, while reducing allied capability to terminate a conflict under conditions favorable to the U.S. These conditions obviously weaken NATO response options. I will not hypothesize as to what the NATO response would be.

Senator **Quayle**. Cruise Missile Solution to Choke Point Scenario—In a recently published study by Joshua Epstein of the Brookings Institute, the thesis was presented that tactical air forces could stall a Soviet attack on Iran using conventional weapons by closing a dozen or so choke points. Has the JCS done any planning along these lines using today's conventional or long range cruise missiles to close such choke points. Would it help if we had more accurate, increased lethality and longer range conventional cruise missiles to accomplish these tasks?

Admiral **Crowe**. Interdiction of choke points is a useful tactic in disrupting an enemy advance, and is of course considered in our planning. Conventional cruise missiles provide added flexibility in choke point targeting in Southwest Asia and other theaters, subject to their limitations in accuracy and lethality against hard targets, their availability, and their range. Improvements in these areas will extend the usefulness of these weapons against an increasing range of appropriate targets, and enhance the mix of weapons and targeting options available to our commanders.

QUESTIONS SUBMITTED BY SENATOR PETE WILSON

Senator WILSON. Last week, the Assistant Secretary of Defense for Reserve Affairs, Mr. James Webb, made a speech in which he expressed serious concern that we have gone too far in shifting missions into the reserve components, especially the Army Guard and Reserve. He noted that 91% of the Army's combat service support units are in the Reserve components and suggested, as a result, that the Army is in "danger of having a force structure that is not even as sustainable as the beans, bullets, and bandages that we have in place to support them."

In short, he suggests that in the event of outbreak of war, while we might have combat troops where we need them, we won't have the necessary support in place to permit them to fight.

My question to you, gentlemen, is do either of you share Secretary Webb's concerns, and if so, what is being done to address them?

Is the continued creating of two more combat divisions in the active Army, with most of the support for those divisions coming from the reserves, likely to correct or contribute to these problems?

Admiral CROWE. I share Mr. Webb's concern about Army combat service support shortfalls. My chief concern is our ability to have the necessary support in place in the event of war to permit our combat troops to fight effectively.

Part of the Army's current force structuring dilemma stems from Congressional concern over a low "tooth-to-tail" ratio in the mid and late 1970s. The Army's annual review of its structure acknowledges shortfalls in its support structure and plans a phased adjustment of support assets among its components. While there remains a need for further review and adjustment, there are limits to how quickly changes can be make. The Army has initiated actions in the areas of readiness, training, and manning which will provide significant relief in the out years. One of the more promising initiatives being explored is the creation of augmentation units containing a mix of full-time manning and selected reserve augmentees. I emphasize, however, that the problem is real today, and we need strong congressional support in our continuing efforts to overcome it.

I would note, as an aside, that the Army's overall structuring rationale is hard to fault. The Army builds and keeps active in peacetime the elements of structure which are most time consuming to build in crisis or war and which afford the greatest measure of deterrence in time of peace. They consider in that equation skills and functional areas existing in civilian society which are better trained by maintaining civilian employment corresponding roughly to similar wartime military requirements. Truck drivers, morticians, cooks, and a host of other support skills are readily available in civilian life and it takes less training to adapt their skills to military needs than it does to train a combat arms soldier to become an effective member of a fighting team.

I intend to take a further look at the force structure this year as part of the net assessment process and will be in a better position at that time to gauge the relative value of changes to our combat and support posture in a constrained budget environment.

[Whereupon, at 3:40 p.m., the committee was adjourned.]

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEARS 1988 AND 1989

THURSDAY, FEBRUARY 19, 1987

U.S. Senate,
Committee on Armed Services,
Washington, DC.

ASSESSMENT OF DEFENSE BUDGET REQUEST

The committee met in open session, pursuant to notice, at 9:33 a.m., in room SR-222, Russell Senate Office Building, Senator Nunn (chairman) presiding.

Present: Senators Nunn, Exon, Levin, Dixon, Gore, Wirth, Warner, Humphrey, Cohen and Symms.

Staff present: Arnold Punaro, staff director; Carl M. Smith, staff director for the minority; Patrick A. Tucker, minority counsel; Robert E. Bayer, Robert F. Bott, Jonathan L. Etherton, John J. Hamre, Ronald P. Kelly, David S. Lyles, Michael J. McCord, Frederick F.Y. Pang, Gordon G. Riggle, Ann Elise Sauer, Patricia L. Watson, professional staff members; Russell C. Miller, research assistant; Richelle M. Turner, staff assistant.

Also present: Jeffrey B. Subko, assistant to Senator Exon; Greg Weaver, assistant to Senator Levin; Edward M. McGaffigan, Jr., assistant to Senator Bingaman; Charles C. Smith, assistant to Senator Dixon; Milton D. Beach, assistant to Senator Glenn; Leon Fuerth, assistant to Senator Gore; William J. Wight, assistant to Senator Warner; James M. Bodner, assistant to Senator Cohen; Mark J. Albrecht, assistant to Senator Wilson; Alan Ptak, assistant to Senator Gramm; Samuel J. Routson, assistant to Senator Symms; and Joe Luckard, assistant to Senator Thurmond.

OPENING STATEMENT BY SENATOR SAM NUNN, CHAIRMAN

Chairman Nunn. The committee will come to order.

This year, the Armed Services Committee chose a different approach to reviewing the budget proposals for the Department of Defense.

We began our review with a comprehensive set of hearings on the overall national security strategy, and, in particular, its military strategic component. Those hearings were designed to provide the committee with a comprehensive policy context in which to conduct its oversight responsibilities, as well as a framework for evaluating the specific proposals contained in the budget requests for fiscal years 1988 and 1989.

We have received detailed testimony from the Department of Defense and other expert witnesses on our national security strategy. We have heard from several of the Unified Commanders-in-Chief on their priorities and deficiencies.

We have received testimony from the Congressional Budget Office on the broad fiscal pressures facing the country, and the potential impact that might have on the defense budget. On Tuesday of this week we again had Secretary Weinberger testify on the program proposals contained in the budget request.

Next week the committee will meet to consider its recommendation to the Budget Committee for defense spending for the Budget Resolution for fiscal years 1988 and beyond. Senator Warner and I felt it was essential that we have an independent assessment of the defense budget from the General Accounting Office before the committee meets to adopt a recommendation to the Budget Committee, which will be next Tuesday, and before we begin our detailed subcommittee reviews.

We welcome today, Mr. Charles Bowsher, the Comptroller General. Before we begin, let me say the committee appreciates the continuing efforts of the General Accounting Office to provide us with information and analysis to facilitate our oversight duties. I also want to mention to my colleagues that we have asked the General Accounting Office to assist us in reforming the reprogramming process, and we look forward to their continuing help in this regard.

We have really asked them to give us an analysis of how we should proceed on reprogramming, and particularly, be able to respond to whether reprogramming requests are in the nature of urgent requests, or whether they are things that could be delayed to the regular process.

We are getting more and more reprogrammings that, in effect, are competing with dollars for the next budget. And they do not, in my opinion, go through the process of being weighed in terms of priority.

Now, that can be understood when they are urgent. But when they are not urgent, they need to be balanced against the other needs in the defense budget as reflected in the budget process.

Chuck Bowsher, we appreciate your being here today and we appreciate the work you have done. We wrote you a letter asking for certain testimony in certain areas. We did not ask you to do a microanalysis of every item in the budget, and we do not expect that.

We appreciate very much your efforts, and we look forward to hearing your testimony this morning.

STATEMENT OF CHARLES A. BOWSHER, COMPTROLLER GENERAL OF THE UNITED STATES; ACCOMPANIED BY FRANK C. CONAHAN, ASSISTANT COMPTROLLER GENERAL

Mr. **Bowsher**. Thank you very much, Mr. Chairman.

I have with me Frank Conahan, the head of our defense and international work. And we're very pleased to be here today.

I will read my testimony, and although it's 19 pages, I'll try to do it fairly fast.

Chairman Nunn. Well, I think it's important, so you go ahead and take whatever time you need.

Mr. Bowsher. All right.

By any measure, the growth in the defense budget, begun in the final years of the Carter administration and accelerated by the Reagan administration, has been of historic peacetime proportions.

Since 1980, through fiscal year 1986, the Nation has invested on the order of $1.6 trillion in defense, and by the close of this decade, the amount invested will approach $2.5 trillion.

The question many are asking is whether the American people are receiving full value in increased security for the money they are investing.

Has the gap between our declared military strategy and the resources to support that strategy narrowed? Or are the critics who point to revelations of procurement abuses and Pentagon mismanagement more correct when they state that we have experienced a defense spend-up rather than a defense buildup?

It is not possible to precisely tally up the extent to which the Nation is more secure due to the money spent. It is clear to me, however, that our Nation's military forces are stronger, more capable, and more ready today than at the beginning of this decade.

Nowhere is this more evident than in the dramatically improved quality of people in the Armed Forces. At the beginning of the decade, for example, less than 65 percent of Army recruits were high school graduates. Today, that number for the Army exceeds 90 percent, and other services are doing as well or better.

High school graduation is but one indicator of personnel quality. Other indicators of quality, such as aptitude test scores, are also up significantly over where they were in the late 1970's and early 1980's.

Despite the improvements that have been made in our military capabilities over the past 6 years, serious gaps will continue to exist between military strategy, capabilities and resources.

For example, our military strategy since early 1980 has called for a very rapid response to a Soviet threat in the Persian Gulf region. The fact remains, however, we do not have all the forces that the military believes are needed to respond to such a threat—strategic airlift, fast sealift, prepositioned material and equipment, and dedicated forces.

Even with the recently ordered C-5B aircraft, which are now entering the fleet, and the new C-17 aircraft, which have not yet begun to come off the production line, the military will still fall short of its strategic airlift requirement.

Force mobilization and deployment from the United States for a major NATO war also remains a serious concern, as does our Nation's ability to execute our nuclear strategy due to questions concerning the reliability and survivability of our command, control, communications and intelligence gathering systems.

Of equal concern is whether our stores of ammunition, spare parts, and other material needed to fight over a prolonged period are adequate. Budget allocations to improve sustainability have increased in absolute terms during the first half of the 1980's, although not at the same relative rate as have other components of the budget.

Despite these increases, the chiefs of the warfighting commands continue to warn that because they are short of critical spare parts and ammunition, our forces would be hard pressed to fight intense combat for a prolonged period.

These gaps between strategy and resources must be viewed in the context of a series of questions and problems concerning the overall balance within the defense budget, and the affordability and supportability of systems currently in the inventory and those coming on line.

This then must be judged within the larger context which this committee has been examining of whether our military strategy is correct.

CAN WE SUPPORT WHAT WE HAVE AND WHAT IS COMING ON LINE?

It seems clear that we are following the historic defense funding cycle, and are now moving from a period of relatively rapid defense budget growth to a period of more restrained budgets.

This is evident in the reductions that Congress made to the President's budget requests for fiscal years 1986 and 1987, and it is further evident when one looks at the President's request for fiscal year 1988 and finds that it is $30 billion less than the administration projected just 1 year ago for 1988.

While DOD will be unable to procure everything it wants, the major capital assets it has bought—ships, aircraft, missiles and tanks—are very costly to maintain, and will place a heavy burden on the defense budget as we enter the years of slower or no growth in the defense budget.

The question of whether we can support the capital assets we have acquired, and whether adequate funds will be available to maintain readiness and improve sustainability will be paramount as we proceed into the last half of the 1980's and look forward to the 1990's.

While money for readiness and substainability clearly increased in absolute terms over the first half of this decade, the defense buildup was front loaded in favor of major weapons systems and force structure expansion.

In the future, we will be faced with such budgetary demands as: operating and supporting a 600-ship Navy, that according to Navy projections will require some real budgetary growth over the next decade; maintaining and operating a fleet of B–1 bombers while at the same time developing and acquiring a Stealth bomber; continuing to modernize the Army, though at a slower pace than desired, which the Army believes will require about a 3-percent real growth in its budget; and continuing the development of the Strategic Defense Initiative [SDI], the small intercontinental ballistic missiles (the Midgetman), the Trident II (D–5) missile, and the deployment of the MX.

Historically, too many weapons systems have been started or proposed for the limited funding available, and often the cost estimates for these systems have been overly optimistic.

This combination—too many programs and optimistic cost estimates—have produced the much discussed bow wave phenomena where future funding requirements outstrip funding availability.

Procurement stretchouts, rather than program cancellations or postponements, have been the time honored way of reducing current year budgets and changing the shape of the bow wave.

Such a policy results in increased total program costs and unit costs. The unit costs of the M-1 tank, the F-18, the Blackhawk helicopter, and several other weapons systems proposed for quantity reductions in the fiscal years 1988 and 1989 budget will increase, due to the policy of procurement stretchout.

Some believe that other areas of the defense budget, such as sustainability, have already suffered in order to meet the budgetary demands of the new and more modern weapons systems.

In 1981, DOD implemented its acquisition improvement program, better known as the Carlucci initiatives. Of the 32 management initiatives, DOD focused special management attention on the initiatives involving (1) program stability, (2) multiyear procurement, (3) economic production rates, (4) readiness and support, and (5) competition.

Both the Packard Commission and GAO have seen improvements in the acquisition process. However, the initiatives have not fully achieved their intended results. Little progress has been made in stabilizing weapons acquisition programs. The Department still needs to budget more realistically, limit the number of new programs, and eliminate the marginal programs.

THE ARMY'S LHX PROGRAM

During this upcoming biennial budget period, a number of very expensive weapon systems are scheduled to transition to full scale development, or to full rate production.

The committee has asked for GAO's assessment of 27 of these systems, and we will be providing this assessment to you in the near future.

However, I would like to mention briefly one Army system that the committee may wish to examine more closely as you consider the next 2 years' budget priorities. This is the LHX helicopter program, one of the Army's largest new acquisition programs.

We agree with the Army that the goals of the LHX helicopter program are worthy—to replace the Army's aging helicopter fleet with aircraft which, among other things, would outperform the older aircraft and yet be less expensive to operate and maintain.

But is the system affordable, given rising costs which reflect efforts to achieve its challenging performance requirements? Or do modified and upgraded existing systems offer an acceptable and less costly alternative?

Current program estimates indicate that several of the LHX's original goals will not be met. This underscores the difficulty of filling the LHX's requirements while trying to hold costs down.

The flyaway cost goal for the LHX fleet was $5.3 million in fiscal 1984 dollars per aircraft; and this has now escalated to $6.1 million per aircraft.

Hoped for savings in operation and support costs, originally put at 40 to 50 percent, are currently estimated at about 20 percent.

While the Army is still striving to make the LHX a single pilot aircraft, early development has indicated that enough risks remain that it was prudent to add a dual pilot version to the LHX development effort.

Last year, the cost to develop and produce 5,000 LHX's was estimated at $61 billion in escalated dollars. Now the Army estimates that it will cost $66 billion, up $5 billion, to develop and produce 500 less aircraft, 4,500 aircraft. At the same time performance expectations of the LHX have been lowered somewhat.

The magnitude of the LHX program alone makes affordability a key issue, independent of technical uncertainties which may lie ahead. Last year Army data projected a shortfall of funds in several peak years of LHX production.

This year LHX cost estimates are even higher, while estimates of available funds are lower.

AFFORDABILITY OF NAVY PROGRAMS

In 1981 the Navy changed its maritime strategy from a defensive posture during hostilities to one of forward deployment. This change in the maritime strategy is the lynchpin and the underlying reason for the Navy's fleet expansion initiative—commonly referred to as building to a 600-ship Navy, including 15 deployable carrier battle groups.

Between 1981 and 1986, the Congress appropriated about $74 billion in fiscal 1986 constant dollars for the Navy's shipbuilding and conversion programs. This does not include cost of aircraft for the carriers or operation and support costs.

During this period, the Navy increased the size of the fleet from 13 deployable aircraft carriers and 466 ships to 14 deployable carriers and 542 ships.

The Navy, however, still has some way to go before it will achieve the minimum force it says it needs to execute the maritime strategy.

Chairman Nunn. Mr. Bowsher, could I interrupt you? You are telling us then that the Navy has two different plans. One is for a 600-ship Navy, and the other is the minimum force necessary to carry out its strategy.

Now are those really two different things?

Mr. Bowsher. Well, they are compatible. In other words, the 600-ship Navy is the long-term plan that they have. And, they also have a minimum force requirement that they are working toward.

I think that one flows into the other. We will soon be coming out with a report, as I mention later, where we point out that there really is not enough money in the program now to get where the Navy wants to be. So what you're facing is a bow wave of funding to get to the Navy's ultimate program.

Chairman Nunn. Beyond what is in the 5-year plan.

Senator Warner. Do you have a number of ships which equates to the definition of minimum force?

Mr. Conahan. That is the mix of ships that the Navy refers to as a 600-ship Navy.

Chairman Nunn. Are they the same thing? It sounds like they are two different things. You're saying we're going to get 600 ships, but you aren't going to have the minimum force.

That implies to me that the minimum force is more than 600 ships, or at least a different makeup of ships.

Mr. Conahan. We will be reporting later on that. The Navy does not have sufficient funds in its 5-year plan or extended annex to achieve the mix of ships that it now defines as a 600-ship Navy, it will not be able to achieve its minimum force.

Chairman Nunn. So it's not going to be able to, with the funding in the 5-year plan?

Mr. Conahan. That's correct.

Chairman Nunn. But still, the question is, What's the difference between the minimum force and the 600-ship Navy? Is it a difference?

Here it says by 1989 the Navy will have 600 ships in the fleet, but it says it will not have the minimum force.

Mr. Conahan. It will not have certain surface combatant ships that it believes are necessary. Within that minimum force, within the 600-ship Navy, there are a certain number of surface combatants, a certain number of support ships and so on.

They will not achieve the number of surface combatants required to meet that minimum force.

Chairman Nunn. Well, it looks to me that the 600-ship Navy does not really correlate to the strategy, does it? Is that what you are saying? You are saying the 600-ship Navy is not the right criterion on which to base the force; that the minimum force is what we should be looking at, rather than the 600-ship Navy?

Mr. Bowsher. No, I think we might be giving a wrong interpretation here. Because what we asked the Navy for was their funding plans to come up to the 600-ship Navy. We saw something less than what they had when they were doing this review.

So as we point out, they are missing some ships—cruisers and amphibious ships, primarily—to get their minimum force requirement. And it's just going to cost X billion dollars more than they programmed. The report we have in process will explain to the Congress what additional funding will be needed.

Chairman Nunn. It looks to me like you are saying that by 1989 they will have 600 ships, right?

Mr. Conahan. Yes, sir, but they are not the 600-ship mix that the Navy has determined is needed to meet its minimum requirements.

Chairman Nunn. So which of those terms should we take as the John Lehman 600-ship Navy?

Mr. Conahan. If they were able to get the mix of ships in their plan to meet their strategy, that would be the 600-ship Navy.

Chairman Nunn. So we are not going to see the John Lehman 600-ship Navy within the current 5-year defense plan?

Mr. Bowsher. That is correct.

Mr. Conahan. That is correct.

Senator Warner. Let me try it a different way. What you're saying is, we're going to attain 600 ships, but the composition does not constitute the fighting force that you should have; is that correct?

Mr. Bowsher. That is right, according to the Navy. In other words, the Navy says that they want this mix of fighting ships to have their forces, and they will not get that minimum force with the funding that is in your current 5-year plan.

Senator **Warner**. There are a couple of things. There's the funding level which you indicate is going to be short to establish a fighting force which you and the Navy think is essential.

And that fighting force is not the 600-ship Navy now planned, but 600-plus ships.

Mr. **Conahan**. The total number of ships eventually will be over 600.

Senator **Warner**. To constitute the fighting force that we all characterize as a 600-ship Navy.

Mr. **Conahan**. That is correct.

Senator **Warner**. So really this title of a 600-ship Navy is a misnomer. You are going to reach 600, but——

Mr. **Bowsher**. It is not exactly the makeup of what they're hoping for as far as the fighting ship Navy.

Senator **Cohen**. It may be a 700-ship Navy, but a Lehman's 600-ship. In other words, if you had 600 of John Lehman's ships, it would be the minimum force necessary.

You may have to get 700 ships to get that 600 that John Lehman has in mind.

Mr. **Conahan**. I think that's a way of characterizing it. But I think we also need to add to that we're not really sure that the 700 ships are going to include the 600 that Mr. Lehman envisioned as his 600-ship Navy.

It would be a different mix, even among those 600.

Senator **Warner**. There must be an easier way to do this.

Mr. **Bowsher**. We could share the draft of our report with you, because we've already sent it to Defense for their review. I think that would help sort it out.

Mr. **Conahan**. Some of the individual numbers get classified, and you tend to talk around them a bit.

Chairman **Nunn**. The numbers are classified?

Mr. **Conahan**. The number of individual ships which we believe will be short at the conclusion of the 5-year period, and at the conclusion of the century.

Senator **Exon**. Is that classified?

Mr. **Conahan**. Yes.

Chairman **Nunn**. You mean even at the end of this century we are not going to have what Secretary Lehman has identified as the 600-ship Navy?

Mr. **Conahan**. We do not believe, based on the 5-year plan and the extended annex, that they will.

Senator **Warner**. Has he misled the Congress in his representation that this is the goal the United States should have in that 600-ship Navy as the proper mix for a fighting force, 15 carrier battle groups?

Mr. **Conahan**. I do not think we are arguing with the goal. What we are arguing is that the minimum force required to carry out the strategy is a different mix than the currently programmed 600 ships.

We are simply taking a look at the dollars available, and making some analysis as to where it will take us.

Senator WARNER. But he has repeatedly said to the Congress the United States needs 600 ships. Either the Secretary of the Navy has determined that mix—and it seems to me that we have gotten the impression that if we fund a 600-ship Navy, we get 15 battle carrier groups, and the United States therefore has adequately met its requirement for new ships and adoption of a full maritime strategy.

Mr. BOWSHER. The shortages are not in the battle groups, but are rather in the number of cruisers and amphibious ships.

Senator WARNER. You are a former Assistant Secretary. How can you come here and say that?

Mr. BOWSHER. Well, with today's plan you end up with enough carriers. Then the question is whether the battle group makeup that they are requesting—cruisers and amphibious ships—meets the minimum force requirements.

We looked at the funding plan, and what we thought it would cost, and you're going to come up short of money.

Chairman NUNN. You are saying when Secretary Lehman tells us, as he repeatedly has, that we will have a 600-ship Navy, or the 600-ship Navy, by 1989, that he's just wrong.

Mr. BOWSHER. I think as Senator Warner put it, he might have 600 ships, but they are not in the configuration that the Navy eventually wants for their fighting forces.

Chairman NUNN. How do you interpret his descriptions? You read them over a period of time. Which Navy is he talking about? Just 600 ships of any variety, or has he been talking about a set 600-ship plan with a minimum——

Mr. BOWSHER. I think he has generally been talking about 600 ships with 15 carrier battle groups. And what there has not been as much focus on is some of the ships that would be——

Chairman NUNN. If you hold him to that definition, what he is saying about reaching that goal in the late 1980s is wrong.

Mr. BOWSHER. Well, I think if the Navy wants the ships that they have shown us as being within their plan, they are going to be short of money.

Chairman NUNN. Which is another way of saying, if you hold him to his consistent definition, he is now wrong when he says he is going to reach it.

Mr. BOWSHER. I think that is correct.

Senator EXON. May I see if I can clarify this in my mind. I think it is a terribly important thing.

Senator WARNER. It certainly is.

Senator EXON. When you said some of these figures are classified, can you give us some unclassified percentages?

I think we all know that Secretary Lehman envisioned the 600-ship Navy as the minimum force necessary for the future.

Now, if I understand you right today, the Navy has not even proposed in their budget the amount of money that you believe is necessary to meet their defined goal. I suspect that this was the case all the way along.

If we go ahead with this present plan, envisioning Secretary Lehman's 600-ship fighting force as we understand it to be, how much is he short? Is he short 10 ships of his 600-ship Navy, or is he halfway to the goal? Is he three-fourths of the way to the goal?

He has led everyone to believe, as my colleagues have said, that as he leaves office, everything is set, and we are going to have this 600-ship force 5 years from now.

Mr. BOWSHER. We have this in the draft report which is very close to being issued. What we lay out is that the carriers do come into the program as planned, but that the number of cruisers and amphibious ships will be short of the minimum force requirement. What I do not remember is the exact number that are required for each of those, but to fund those out you are coming up short on dollars. We will provide that information for the record.

Senator EXON. You cannot give me an approximate percentage now as to whether we are 75 percent there or 50 percent or 99 percent?

Chairman NUNN. What is the shortfall?

Mr. BOWSHER. They want 137 cruisers and destroyers, but right now there are 112 in the plan.

Chairman NUNN. You are talking about 25 short in cruisers and destroyers?

Mr. BOWSHER. Yes.

Senator EXON. We are in the 75 percent area for cruisers. Now, is that the same across-the-board for the rest of the 600-ship fleet?

Mr. Bowsher. The shortage is primarily in amphibious ships and surface cruisers and destroyers that support the 15 battle groups.

Senator EXON. Maybe you can provide it for the record. I think it is important that we know what the shortfall is.

Chairman NUNN. We would like to have that for the record if we could.

Mr. BOWSHER. Yes.

Chairman NUNN. Could you also price out the shortfall?

Mr. BOWSHER. Yes, we did. We have an estimate for the shortfall in the draft report.

Chairman NUNN. Do you know what it is offhand? What is the shortfall in dollars?

Mr. BOWSHER. We are not sure, but we can provide that information for the record.

[The information follows:]

GAO RESPONSE TO QUESTIONS ABOUT THE 600-SHIP NAVY

GAO's classified draft report titled "Status of the Navy's Fleet Expansion Efforts" was provided to the Chairman and Ranking Minority Member of the Senate Committee on Armed Services on February 19, 1987. It provides detailed descriptions and analyses of the mix of ships the Navy plans to have, and will likely have, in fiscal years 1990, 1995, and 2000. The report then compares this with the Navy's stated minimum requirements to carry out its strategy objectives. Projected shortfalls in all categories of ships (except strategic forces) are identified and estimated costs to eliminate the projected shortfalls are presented. The specific number of each type of ships, the cost of the ships, and the projected timeframes for eliminating the shortfall have been classified SECRET by the Navy. However, the following unclassified information illustrates the thrust of our report.

WHAT IS THE 600-SHIP NAVY?

There is an important distinction between a Navy with 600 ships and what has been defined and advertised as "the 600-ship Navy." The Navy will have 600 ships in the fleet by fiscal year 1989, but it will not have what it has defined as "the 600-ship Navy" by the year 2000. Navy documents define "the 600-ship Navy" as a specific mix of ships that constitute the minimum force requirement for carrying out its wartime forward deployment strategy. The Secretary of Defense's 1988 Annual Report to the Congress identifies this required mix of ships as follows:

Ballistic Missile Submarines and Their Support Ships	20-40
Deployable Aircraft Carriers	15
Reactivated Battleships	4
Cruisers and Destroyers	137
Frigates	101
Nuclear-Powered Attack Submarines	100
Mine Countermeasures Ships	14
Amphibious Ships	75
Patrol Combatants	6
Combat Logistics Ships	65
Support Ships and Other Auxiliaries	60-65
Total Deployable Battle Force Ships	597-622

Classified Navy documents used in GAO's analyses further delineate the requirement within each category of ships by specific types and classes of ships at specific points in time.

The Secretary of Defense's Annual Report stated that many of the individual force structure goals will not be met until the late 1990s, and some will be delayed into the next century. GAO's report shows that the shortfall may be even greater than anticipated.

WHERE ARE THE SHORTFALLS?

The Navy has testified that it needs 137 cruisers and destroyers as follows:

Cruisers:	
CG-47	27
CG/CGN	6
Total Cruisers	33
Destroyers:	
DDG-51	63
DD-963	37
DDG-993	6
Total Destroyers	104

The greatest shortfall in "the 600-ship Navy" is in the DDG-51 class destroyers. While the Navy's goal is 63 DDG-51s, it has only programmed 29 of these ships for acquisition. At the time of GAO's review, the Navy had no plans for requesting congressional authorization and funding for the remaining 34 DDG-51 destroyers. The Navy said it will use less capable ships to offset a part of the shortfall. GAO found that the Navy's DDG-51 shipbuilding plans have slipped, and based on historical experience, there is some likelihood that even the 29 ship program will not be achieved.

Major shortfalls also occur in the amphibious ship program. In 1985, the Navy's stated goal was to buy 75 amphibious ships of a specific mix by 1994. This program included the acquisition of three new classes of ships (LHD-1, LSD-41, and LSD-41(CV)) and a service life extension program for 11 LPD-4 amphibious ships. If the fiscal year 1986 shipbuilding plan would have been followed, that goal would have been achieved. However, the fiscal year 1987 shipbuilding plan delayed the achievement of the goal until 1996, and the fiscal year 1988/89 program indicates that the amphibious lift goal may not be achieved until after the year 2000.

The "600-ship Navy" will also be short of attack submarines, mine warfare ships, and support ships.

WHAT SHIPS WILL BE IN THE FLEET IN 1989?

It is true that the Navy will have 600 ships in the fleet by 1989, but some of those ships are not part of the Navy's minimum force requirement, and others are older and less capable than the Navy says it needs. The Secretary of Defense's 1988 Annual Report indicates that the following ships will be in the fleet by 1989.

Ballistic Missile Submarines	38
Strategic Support Ships	6
Aircraft Carriers (Deployable)	14

Battleships	4
Cruisers	43
Destroyers	69
Frigates	116
Nuclear Attack Submarines	101
Diesel Attack Submarines	4
Patrol Combatants	6
Amphibious Ships	67
Mine Warfare Ships	10
Combat Logistics Ships	61
Support Force Ships	66
Total	605

However, included in the above table are 4 diesel attack submarines that are not a part of the defined "600-ship Navy;" three mine warfare ships that are old minesweepers of the MSO class and not a part of current force structure goals; and several old DDG-2 class ships that are not part of "the 600-ship Navy" force structure goal.

While there will be ships in the fleet for many years that do not specifically meet "the 600-ship Navy" force structure goals, these ships are nonetheless viable assets that contribute to the Navy's missions. However, many of these ships are old and have limited capabilities, and as they age their contributions will further diminish. The ships that the Congress has authorized and funded since 1981 will give the Navy many new and more capable ships, but the Navy will still fall short of having the mix of 600 ships it has defined as the minimum force needed to carry out its maritime strategy during time of war.

Chairman NUNN. Thank you. Why do you not go ahead? I did not want to interrupt but this one caught everyone's attention.

Mr. BOWSHER. Expanding the fleet is expensive, but the capital investment is only a portion of the cost associated with the larger fleet. Operations and support costs will also grow substantially. As new classes of ships and their attendant systems are introduced into the fleet our calculations show that operating and support costs of $47 billion in fiscal year 1986 will nearly double in constant dollars by fiscal year 2000. It seems to me that this raises a very fundamental question about whether the country can, over the long haul, spend what the Navy says is required to carry out its current forward deployment maritime strategy.

The Navy's current budget request of $1.4 billion for a down payment on two new replacement nuclear aircraft carriers brings to the forefront the need to address this very fundamental question. The Navy's plans originally called for requesting authorization for these carriers in 1994 and 1996 but it was decided to accelerate this schedule by 4 years. The Navy told us that there are two primary reasons for this 4-year acceleration. The first is to maintain the shipbuilding industrial base at Newport News shipyard. The second is that the Navy believes that it was better to go for new construction rather than to pay the cost of extending the life of its existing ship. Service life extension for an aircraft carrier now costs over $1 billion and takes about 3 years to complete. To control the cost of the service life extension program the Navy——

Senator WARNER. That is for a single ship, $1 billion?

Mr. BOWSHER. That is correct. Now, to control the cost of the service life extension program the Navy is reducing the scope of work to be performed. Funding for the $1.4 billion downpayment reportedly came from all Navy accounts, but primarily from reducing the scope of work for extending the life of aircraft carriers and by eliminating the planned service life extension program for the LPD-4 class amphibious ship.

The Navy has stated that early procurement of these two carriers will save about $1.5 billion to $3 billion in acquisition costs. We are currently evaluating the basis for these anticipated savings.

Maintaining the Nation's industrial base is an extremely important issue and goes well beyond the Navy's immediate concern regarding the Newport News shipyard. For example, what are the minimum industrial base requirements for a wartime surge capability in those industrial sectors upon which the military relies such as shipbuilding and aircraft manufacturing, and what are the long-term budgetary implications of sustaining the necessary industrial base?

There are no easy answers to these questions, but I believe that this issue bears directly on the decision that Congress makes regarding the Navy's request. As part of our inquiry into the Navy's savings estimates, we will also obtain information on the reasonableness of the Navy's argument that this early procurement is needed to maintain our shipbuilding industrial base.

STRATEGIC BOMBER PROGRAMS

Now, as the committee examines the administration's budget request for future spending, particularly for new programs, it is useful to look at how money authorized and appropriated in earlier years was spent. Our examination of the Air Force's management approach for the B-1B bomber program offers some instructive insights as you consider the Pentagon's request for money to proceed with other programs such as the Stealth bomber, the advanced technology fighter, the advanced cruise missile, and other programs that are on the cutting edge of technological development.

Over the past several months, particularly since the B-1B attained what the Air Force has defined as initial operational capability, there has been a great deal of media attention to the substantial shortcomings of this aircraft. While the B-1B clearly adds to this Nation's strategic capability, our work substantiates that serious deficiencies exist. The defensive avionics system critical to the aircraft's survivability has experienced serious developmental problems and changes during production. The details regarding these deficiencies are classified. However, it is clear that the current deficiencies reduce the bomber's capabilities and limit the strategic planner's flexibility in deploying the aircraft on the full range of missions initially envisioned. Some of the problems are not amenable to quick or easy solutions while others can be more easily fixed.

But there are lessons to be learned from the B-1B procurement, the primary one being the need to provide sufficient time for more thorough operational testing and evaluation of systems prior to production. In this instance flight testing of the aircraft was severely limited due to the unavailability of test equipment and the short amount of time allotted for conducting tests prior to the date mandated for initial operational capability. GAO has long been concerned about concurrent development and production of major weapons systems, and we have recommended in the past that results critical to assessing mission performance be available before full-scale production begins.

MANNING THE FORCE OF THE FUTURE

I would like to turn briefly to a topic of great interest to you and this committee, an issue that will not only have important budgetary implications for the future but could also influence the development of military objectives, strategy, and doctrine. The issue I am referring to is the question of how this Nation should man the force of the 1990's and beyond.

Should we continue to rely on the All-Volunteer Force, or should we return to conscription because of the declining pool of eligible youth, for budgetary reasons, to recognize civic obligation, or to increase our mobilization capability?

GAO is currently evaluating numerous studies that touch on this issue, and we are gathering information on how our allies and principal adversary have addressed it. Based on these studies, the information collected, and preliminary costing work we have done, it appears that returning to conscription could save money only if certain assumptions are adopted in making this analysis. These assumptions would include the extent to which first term pay could be reduced, whether the force size would remain at about the same level as it is today, and whether a significant shift in favor of having more first term personnel as compared to career personnel in the Armed Forces is feasible. I would quickly add, however, that manning changes, such as modifying the force mix in favor of a high ratio of first term personnel or changes in manning levels would also reduce the cost of the All-Volunteer Force.

Aside from questions of cost, however, it is not clear how conscription would affect force quality of military effectiveness, nor are the studies clear on how several other questions should be resolved. For example, if we were to return to a 2-year draft of low wages for conscripts, how should the question of equity be addressed in view of the fact that less than half of the eligible youth population would be asked to serve in the military? What should be the proper tradeoff between the need for an experienced force and the fact that more young people would receive military training under a draft and would thus be potential mobilization assets. The resolution of this question would be of particular importance in light of the more sophisticated weapons systems now in the inventory.

We hope that the results of our work will help the Congress address this issue.

MANAGING DEFENSE RESOURCES

Now, the growth during the 1980's of the defense budget has been and continues to be substantial. It has clearly been the intention of the administration supported by the Congress to increase the buying power of the defense budget. This was needed to rebuild our forces and increase their sustainability and readiness. It is clear that progress has been made in achieving these objectives.

However, with the growth of the defense budget, a number of issues surface that directly relate to these budgets. Money was included in the DOD budget request and the defense appropriations each year to pay for future inflation. However, since inflation was less than projected, DOD received an estimated $55.8 billion more than was needed over the past 6 years to pay for actual inflation. Some of the extra inflation funds were used to buy more defense programs. Some were reprogrammed into other programs. Some simply lapsed, and according to DOD calculations $17.2 billion* was eliminated by congressional cuts.

Prior to the early 1960's neither DOD nor any other Federal department budgeted for inflation. The low inflation rates of that period presented little threat to real purchasing power. That all changed during the 1970's, when unexpected high inflation rates seriously eroded the purchasing power of money appropriated for defense. The situation again changed during the 1980's when lower than expected inflation rates produced an unintended dividend.

At the direction of the Congress we are currently examining alternative methods to budget for inflation and to report the effect of inflation budgeting to the appropriate committees. We will be reporting on this study in the near future.

Each year we examine the individual service budgets and identify amounts that we believe the Congress should consider for reduction. Last year we told Congress about $14.8 billion in possible reductions for reasons such as production schedule slippages or contracts that were for lower amounts than expected. Significant reductions were made. As the service budget justification books become available we will again be examining them for similar types of reductions.

Quite aside from the questions of the Defense Department budgets for anticipated inflation or whether specific budget lines can be reduced is the broader issue of whether the Department's financial management systems facilitate or impede the decisionmaking process and whether adequate controls are maintained. As the Congress and administration grapple with the budget deficit and make the difficult decisions on controlling Government expenditures, it is vital that ongoing operations be as efficient as possible. This can only be accomplished if we have adequate management systems. Although DOD has an elaborate planning, programming, and budgeting system, the financial management system used to track the execution of the budget is in need of reform. A major difficulty is that the accounting systems that track how funds are actually being used are not directly linked to the budgeting process. A case in point is the selected acquisition report, sometimes known as the SAR system. Though useful, the SAR's have several limitations.

First, the SAR's generally rely on a contractor and other information not necessarily tried to DOD's accounting systems. Second, information on the same weapons system may be reported differently from 1 year to the next. Third, information in the SAR's is not consistent with that in other budget documents provided to the Congress.

Another issue that bears on how defense resources are managed centers on DOD's profit policy. The most visible evidence that such improvements are needed is the current debate over whether profit policy objectives are being achieved and whether contractors are earning higher rates of return on their defense work than is earned by producing durable goods for general consumption.

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*The estimated $17.2 billion eliminated by congressional cuts was calculated by GAO based on data provided by DOD.

There is presently no legislatively mandated requirement to make these determinations and past attempts to do so have been challenged because of the limited scope and differing analytical methodology. The history of efforts to deal with the issue of governmental contractor profits is important because it emphasized the need for periodic studies of profitability based on a mandatory profit reporting system. Underpinning our economic system is the concept of a free market that establishes a fair price to the buyer and an equitable profit to the seller.

However, because of abberations in the marketplace such as escalating demand for war materials or the inability to obtain competition for many of the unique items which the Government buys, the Congress over the years has found it necessary to address allegations of excess contractor profits. Congressional actions have included legislation which sets prices, limits profits, and taxes excessive profits or authorizes the Government to recover profits deemed excessive. These measures were generally taken without adequate information because it simply was not available.

In November 1986, 2 months ago, we released an exposure draft report entitled, Government Contracting: A Proposal for a Program to Study the Profitability of Government Contractors. This exposure draft examined in some depth the need for Government to develop a systematic method of measuring the performance of its profit polity and explained why a structured and consistent profit reporting program is needed. As part of our study we offered draft legislation for the Congress to consider if a decision is made to establish such a program.

We are currently evaluating comments received from a wide range of defense contractors, industry associations, Federal agencies, public accounting firms, and consultants. Not surprisingly, there is little enthusiasm on the part of the industry and the Pentagon for our proposal. Despite this, we believe that dissatisfaction with the Government's profit policy will continue without a consistent and appropriate analytical methodology to evaluate profitability, a means to verify contractor furnished data, and mandating contractor participation.

Mr. Chairman, today I have touched on some of the issues facing the Congress as you and the members of this committee consider the President's fiscal year 1988-89 budget request. In summary, the Department is continuing with the program begun in 1981. The budget continues to be a front-loaded one with major weapons system programs, though at a slightly lowered rate. This can be seen by observing that DOD's procurement and research, development, test, and evaluation accounts have grown from about 34 percent of the defense budget in fiscal year 1980 to nearly 45 percent in fiscal year 1986.

This ratio has declined to about 42 percent in the fiscal year 1988 program and remains relatively constant at that level over the 5-year planning period. Budgetary allocation for other accounts, primarily those that support readiness and sustainability, did not grow proportionately.

If defense budgets were to continue growing at the same rate as during the first half of this decade, such a policy may pose fewer problems. However, this will probably not be feasible. DOD is continuing to start programs that will be difficult to complete and support under anticipated budget.

Mr. Chairman and members of the committee, we recognize that you and other members have urged the Department to share with the Congress its hierarchy of defense spending priorities. However, the Department has not been willing to do this. In my opinion, as budgets tighten, it would seem more important than ever for the Department to share its priorities with the Congress.

This concludes our prepared remarks, Mr. Chairman. We would be pleased to respond to any questions.

Chairman **NUNN**. Mr. Bowsher, let me congratulate you on a very thorough and thought-provoking statement that was very responsive to the letter that Senator Warner and I wrote to you in requesting this testimony. You have given us a lot of things to think about. You have not gotten bogged down in all of the nitty-gritty, but you have given us the macrotype approach, and this has been extremely valuable to us.

I have a few questions. We are going to have a 6-minute rule again today. We do not have as many members here. I am sure that many of them will be in other hearings and be coming in and out, and I know that all of them will be very interested in your testimony, but we will go with the 6-minute rule notwithstanding that.

You note in your testimony on page 5 that "Historically, too many weapons systems have been started or proposed for the limited funding available and often the cost estimates for the systems have been overly optimistic." And you ended up with your summary by saying that that is one of the main problems we have.

Mr. **BOWSHER**. Without a question.

Chairman **NUNN**. I agree with that. One of the key objectives of the Carlucci initiatives which came in, I guess, 1981, 1982, was to buy systems at economic production rates. What happened? Here we are 5 years later. That was an announced goal, and yet we probably have the worst situation we have ever faced in terms of too many weapons chasing too few dollars. At least that is my view.

Mr. **BOWSHER**. Two things happened. One was that in approving new programs going into the 5-year defense program the leaders over at the Defense Department were not rigorous enough in sorting out which programs would be approved. In other words, it seems to us that most programs were approved. In fact, all the programs except for the Sergeant York were approved and put into the approved program plan. It was done, I think, on the assumption that they would pretty much have unlimited defense budgets. This has not proven to be the case, especially when you run into $200 billion deficits on the overall budget. So, it is really a case of approving too many new programs and then all of a sudden being forced to do more with fewer resources than the people probably thought they were going to have that were making individual weapons system decisions.

I think this has been a historic problem in the Defense Department. In other words, I think that the planning process over there, the FYDP, the PPBS system is an excellent system as far as visibility. But it has been crammed with too much program over the years, and unless you have very big increases in your budget you will always have real trouble buying out that program at economic quantities.

Chairman NUNN. How do you rate the Department of Defense in terms of canceling marginal programs, let us say on a scale of 1 to 10, 10 being the best in terms of willingness to make hard decisions and cancel marginal programs.

Mr. BOWSHER. I think in recent years it has been very low on canceling marginal programs. Instead what we have seen is that most programs have been approved to go forward.

Chairman NUNN. One of the things that we have got to wrestle with here in this budget, and I know you have already noted that, is the two-carrier proposal. One of the features of that, is this year the DOD is coming up and making what amounts to a proposal for a down payment as opposed to full funding. Would you discuss the implications of going to that kind of financing, the historical record on that?

Mr. BOWSHER. Well, the historic record, I think, is that if you approve advance funding, then the program eventually goes forward.

Chairman NUNN. Have we been doing that in the Navy in recent years? At one point we used to make down payments and then we went to the full funding concept. Would you run through that for us?

Mr. BOWSHER. The full funding concept has been used for shipbuilding for quite a number of years now, going back into the early sixties. So you have had 20 some years of applying this concept. I think when Admiral Rickover was around you had a good deal of advance funding of nuclear component parts, so there was that pattern all through the sixties and the seventies. I suspect that this request for the two carriers is similar to those past requests; that is to get advance funding for some of the key components.

CARRIER CONSTRUCTION

Chairman NUNN. How about carriers? Have we been doing that in other carrier procurements?

Mr. BOWSHER. I think if you look back at some of the other carriers you would have seen the advance funding for some of those component parts, yes.

[Additional information follows:]

ADVANCE FUNDING FOR AIRCRAFT CARRIER CONSTRUCTION

The Navy, as a common practice for large ship construction, requests advance funding prior to full funding authorization to purchase items that have a minimum production lead time of 12 months. According to the Navy, this practice ensures that material, equipment, and systems are available during the ship construction period. The Navy has requested, and Congress has appropriated, advance procurement funds for both the aircraft carrier service life extension program (SLEP) and new aircraft carrier construction, particularly for nuclear components. For example, in fiscal year 1977 the Navy received $350 million in advanced funding for CVN-71, whereas the aircraft carrier was not authorized until fiscal year 1980. Similarly, in fiscal year 1982 the Navy received $475 million in advanced funding for CVM-72 and CVN-73, but authorization and full funding was not provided until fiscal year 1983.

LHX HELICOPTER

Chairman **Nunn**. You mentioned the LHX helicopter. Have you looked at any other programs that you see now that we may have a very difficult time completing based on the funding coming, or are you looking at a series of them?

Mr. **Bowsher**. We are looking at a series of them. I think, Mr. Chairman, that is what you asked us to do a couple months ago, to look at the key milestones. This makes a lot of sense.

I think we can be of more service to the Congress if we look at the major weapons systems that are coming to a decision point than if we just look at a certain number of systems each year. So I think that the work we will be doing for your committee and for the Congress on the major weapons systems will even be more useful starting this year.

Chairman **Nunn**. When do you think we will have available that information?

Mr. **Bowsher**. I think we will be able to start giving you some of this information by March 1.

Chairman **Nunn**. You are going to be able to furnish to us that study you mentioned about the Navy 600 ship. When do you think that will be available?

Mr. **Bowsher**. I think we can give you a draft of that in the next 24 hours.

[The information follows:]

Navy's Fleet Expansion

In response to this request, copies of a classified GAO draft report on the status of the Navy's Fleet Expansion efforts were delivered to the Chairman and the Ranking Minority Member at 1 p.m., February 19, 1987.

Chairman **Nunn**. Is that information that is available for public dissemination at this stage?

Mr. **Bowsher**. No, I will tell you where it is right now. It is over with the Navy and the Defense Department for their review, both classification and——

Chairman **Nunn**. So it will be classified when we receive it?

Mr. **Bowsher**. That is correct.

Chairman **Nunn**. You will let us know when and how much of it can be declassified?

Mr. **Bowsher**. Yes, we will.

Chairman **Nunn**. That is in the process?

Mr. **Bowsher**. That is exactly right.

MANNING THE 600-SHIP NAVY

Chairman **Nunn**. In addition to the 600 ships in terms of purchasing, acquisition and so forth, the 600-ship Navy, you mentioned something else that may be even more significant over the long haul. You say the Navy is going to have to double in constant dollars the operating and support budget in order to support the ships that are entering the Navy.

So you are saying that we are going to have to double the support. Over what period of time is that?

Mr. **Bowsher**. That goes up to the year 2000. From 1974 to 1986, it went from $25 billion to $46 billion, and so what you are seeing is a pattern that is continuing. As the ships become more complex and the weapons systems become more complex, the money to support those systems and for manning just continues to mount.

Chairman **Nunn**. So you will have a continuation of a trend that has been in effect for some time here?

Mr. **Bowsher**. Correct.

Chairman **Nunn**. What about the 5 year plan? Is there enough money in the 5 year plan, based on your assessment, to support the Navy in terms of operation and support?

Mr. **Bowsher**. We think there is enough money in the 5 year plan. We do not at this point have any studies that would indicate that not enough is being programmed, but this is an area that needs study. In our 600-ship Navy report we do make some observation——

Chairman **Nunn**. Could I interrupt just a moment while Senator Cohen is here, because he is asking a key question. Have you included the black programs in this analysis?

Mr. **Bowsher**. We have included the——

Mr. **Conahan**. To the extent that any of the individual programs that you have asked us to look at are black, we have included them in our analysis.

Chairman **Nunn**. But in terms of operation and support, have you looked at the black programs with regard to that?

Mr. **Bowsher**. We have not looked into that, no, but we could do that if the committee wanted us to do so.

Chairman **Nunn**. I interrupted you. You may have finished.

Mr. **Bowsher**. I think we have finished.

Chairman **Nunn**. My time has expired.

Senator Warner.

Senator **Warner**. Mr. Chairman, I would like to show my distinguished former colleague a statement made by the Secretary of the Navy reported on October 14, 1985, with respect to the 600-ship Navy and see if that statement is consistent with what you are reporting this morning. I feel like a trial lawyer.

Mr. **Bowsher**. Well, I think maybe there is a difference here.

Chairman **Nunn**. Could you read it for us?

Mr. **Bowsher**. Yes. This is John Lehman's statement. "We have now under construction and fully funded all the ships necessary——

Senator **Warner**. Go slowly. Under construction and fully funded.

Mr. **Bowsher**. "All the ships necessary to attain a 600-ship Navy centered on 15 aircraft carriers, 4 battleships, surface action groups, and 100 attack submarines."

Senator **Warner**. Unfortunately, I do not have the posture statement, but it appears to be lifted out of that posture statement.

Mr. **Bowsher**. Yes. I think what might be the problem, John, is that he is saying all the ships, so that would support the idea that they have all the ships. At the same time, he is putting emphasis on the 15 aircraft carriers, the 4 battleships and the 100 attack submarines. What I think we are seeing as we review the program is that they really have in their plan this increased number of cruisers and destroyers.

Senator WARNER. I also have here, Mr. Chairman, the testimony of Vice Adm. Joe Metcalf, February 1986, in which he says, "Our ultimate, and I think the key word is ultimate, Naval force objective is the 600-ship fleet", and it goes on.

It seems to me, and I think it is very important that we clear this up, that in all likelihood what you are saying and the Secretary is saying are the same, but we have a few prepositions out of joint here.

Chairman NUNN. And perhaps a few adjectives.

Senator WARNER. I think he is saying that the ultimate goal is 600 ships, and while we may attain that magical number, as you say, in whatever year it was in here, the mix within it still is not optimal to give us the 15 battle carrier groups. However, we are going to work within that cap of 600. As ships reach their service life and are retired, then we will add new ships, and eventually within the 600 ship cap we will reach the optimal Navy of 15 battle carriers.

Now, we will work together to see whether or not we can straighten this out.

Mr. BOWSHER. Right.

Senator WARNER. Because I want no impression that upon the pending retirement of this distinguished Secretary that there is any misrepresentation here.

Mr. BOWSHER. Yes, and I am not trying to——

Senator WARNER. No, I know you are not, but you see that statement, which leads me to believe that you are going to get all 600 ships.

Mr. BOWSHER. My main point here is that I think the committee has to recognize that to buy out the Navy's program and the Army's program, you are facing increased funding demands down the road, maybe larger——

Senator WARNER. That is absolutely right, and our distinguished chairman has said that repeatedly year after year, and finally you got the help. Now you are bringing the witnesses up to document that you made by way of statements earlier. I commend the chairman for that because we really have to address this budget and the future budgets in the context of this problem which is now being documented.

On behalf of Senator Wilson, who is unavailable today because of other reasons, Mr. Chairman, if he were here he would like to commend Mr. Bowsher and the GAO for the excellent support and analysis they provided the Senate Armed Services Committee Task Force of Inventory Management chaired by Senator Wilson. He would observe that this task force has not been reappointed in the 100th Congress, and he would strongly urge that it would be.

The report of the task force is in final stage of production for the 99th Congress, and he would declare his continued interest in this subject and pledge his cooperation with GAO to pursue it as we proceed into the 100th Congress.

I will work with you on this Navy problem. I think we can straighten it out. I hope that such reporting that flows out of this meeting, Mr. Chairman, will allow us the opportunity to get this issue clarified.

Chairman NUNN. I think we will have to pursue it. I agree with you. We will have to make sure that we are ready to go. The key question is whether we are talking about 600 ships of any variety or whether we had in mind a particular Navy strategy and a particular Navy over all. I guess you could have counted 600 ships of one variety or another any number of times during the past.

Senator WARNER. Mr. Chairman, in view of the significance of this contribution by GAO, it would be my intention on the floor today to give a short speech and include this testimony because I think the sooner it should be made available to the widest possible group as soon as possible.

I would put in a caveat that the distinguished former Assistant Secretary of the Navy—I think he was 7 years in that position?

Mr. BOWSHER. No, 4 years.

Chairman NUNN. The only thing the GAO disagrees with the Secretary of the Navy about are prepositions, adjectives, nouns and verbs.

Mr. BOWSHER. That is correct. [Laughter.]

And maybe a few billion. [Laughter.]

B-1

Senator WARNER. Now, Mr. Bowsher, with regard to your comments on the B-1, it seems to me that what you are saying, indeed against that background of 4 years in the Department of Defense, you know there is always this option of fly before you buy, attempting to compress the schedule.

It seems to me before we render judgment on whether an error was made in the B-1 program in not pursuing the "fly before buy" that you should try and provide to us the costs that would have been incurred under fly before buy procedures, because that is not an inexpensive route. Based on my knowledge, you would probably incur a greater program cost were you to have stretched that out over an additional number of years under the "fly before buy" concept.

Mr. BOWSHER. That might be somewhat difficult, but we will try to do that.

[The information follows:]

FLY BEFORE BUY

In the case of the B-1B, a pure "fly-before-buy" would not have been necessary since there was the experience gained in flying the four B-1A aircraft that were acquired. Given that, what was needed was experience and tests with B-1B peculiar items—the new avionics and other equipment. The more conservative approach would have been to prove out the critical items and structure the overall acquisition plan in accord with the development schedule for these higher risk items. As I indicated, it is difficult to attempt to estimate a program's costs if alternative acquisition strategies had been employed. Such comparisons would be largely judgmental, requiring estimates to be developed comparing the costs of slipping the complete program with costs likely to be incurred in modifying and retrofitting the inadequate equipment. The only certainty is the equipment delivered could have been much more capable had less concurrency been employed.

Senator WARNER. Also, would you provide this committee with your best judgment on whether the Air Force can make certain corrections as are required within the original $20.5 billion cost cap that Congress imposed?

Mr. BOWSHER. We can comment on that right now because we think that there will be some additional funding requirements.

Mr. CONAHAN. Senator, in the current fiscal year 1988 budget there is a request for something on the order of $800 million to fix some of the problems that have already been found to exist.

We have also been informed by the Air Force that they intend to submit a supplemental request later in the year in an amount unspecified at this time for doing additional fixes for the problems that they have already identified. So, there will be requirements beyond the $20.5 billion cap in order to take care of some of the problems that they have found to exist up to this time.

[The information follows:]

B-1B PROBLEMS

The Air Force calculates the cost to complete the baseline program, including problems, to be $20.4 billion in fiscal year 1981 dollars or $28.1 billion in then year dollars. GAO did not attempt to verify these estimates. However, because there is significant development and testing remaining to be completed, there is some question whether the baseline program that is capped at $20.5 billion in fiscal year 1981 dollars can be maintained. We can not be certain about the cost to fix the aircraft until the extended testing is completed in 1989. Until then, it will not be certain whether the baseline program will meet the threat, whether the tests scheduled will prove to be adequate, or whether new problems will develop.

Senator WARNER. Mr. Chairman, my time is up. I will have another opportunity. I think it is important to keep this rotation going.

Chairman NUNN. Thank you. I am informed that Senator Wirth was next.

Senator WIRTH. I think we came in at the same time.

Senator EXON. Well, we have been through this many, many times. It depends on when you put the gavel down. We ran into that the other day. Yes, I think that Senator Wirth was in the room before this Senator arrived. This Senator arrived at the appointed time. This Senator was here when the gavel was put down.

I think I am next, and I wish that the staff would get that straightened out so that we would not have to discuss that each and every time this Senator is recognized.

Senator WARNER. Senator Exon, is it not clear that the rule is when the hearing starts?

Chairman NUNN. When the gavel strikes, that is right. The staff will be so instructed.

Senator EXON. Does the staff understand that? Did you get that down?

Chairman NUNN. We recognize you under three rules Senator Exon, the early bird rule, the seniority rule, and the powerful force of your argument.

Senator EXON. Thank you. I have been listening to the very interesting but not totally convincing argument by the former Secretary of the Navy and other Navy officials, both civilian and otherwise, that everybody in the Navy always tells the truth, and I submit that that probably is not the case.

I do think that you have presented us a very interesting proposal here this morning, Mr. Bowsher. You do an excellent job, and we thank you for that. If there is some confusion as to what you were trying to get across, it is confusion that we need here, and it is confusion that I think can help us in the long run.

STRETCHOUT PROGRAMS

Let me start out by asking this question. You said in an answer to a question from either Senator Warner or Senator Nunn that we are continuing to stretch out programs. That is the way we have made up for the fact that we will not cancel a program or will not make any reassessments of priorities.

You said something to the effect that we fail to cancel marginal programs or some such phrase. Was that in your testimony?

Mr. BOWSHER. It was.

Senator EXON. In order to be helpful to us in making those decisions, will you cite any programs that you in your capacity as controller have come up with that you believe are marginal?

Mr. BOWSHER. I do not think that we should be the ones that decide if they are marginal, but what we can provide is the information.

As I pointed out earlier, the chairman requested us to give information to this committee at the key milestones. Then as you look at some of these programs that are either running into cost problems, schedule problems, or technical problems, the committee and maybe the decisionmakers at Defense will have to decide which of those programs are more marginal than some other programs. I do not think we can select the marginal ones.

Senator EXON. When you were using the phrase marginal programs not being recognized, what you were saying? Was there some programs that have higher priority than others but it is our duty to enumerate those rather than yours?

Mr. BOWSHER. Yes, and that is where I think the Secretary of Defense ought to be giving his priorities to the Congress to help the Congress in its decisionmaking. I think the Sergeant York is a good example. That was a weapons system where we and others had pointed out some problems 2 and 3 years before the program was finally canceled. I think it looked more and more like a marginal program. Hopefully, those are the kind of programs that could be either changed or deferred or even taken out of the program as those kind of problems develop.

IMPROVING COMPETITIVENESS

Senator EXON. Mr. Bowsher, we have done an awful lot of work and did a lot of good work, in my opinion, about improving competitiveness. We have a long way to go in that area.

In talking with some of the members of the defense contracting industry, they have come up with a new phrase that I was more or less attracted to. I am wondering if you have ever heard it used in the context that I am about to explain and, if so, what do you think of it.

They are saying since we have been able to deregulate the airline industry, deregulate the trucking industry, deregulate the rail industry that we ought to deregulate the defense contracting industry so that we would not only save some money but we would speed up our procurement.

Have you heard that phrase used in that form before? If so, do you think it has any merit?

Mr. BOWSHER. I have not heard it explicitly used quite as you say, but I think I understand the phrase. I think I understand what the defense industry is saying, and they have been saying it for some time now.

I would like to think they are right. I do think they have too many regulations. There is too much review in the defense industry, but unfortunately when some of the review processes were pulled back in the 1970's, the defense industry was not able to police itself to the extent that they were able to win the credibility argument with the Congress and with the public. This was especially true when the problems in the early 1980's came out in such large numbers. It is a real problem now to buy into that argument.

I really think that one of the keys is the issue of disclosure; in other words, disclosure along with deregulation. That is what part of our profits study proposal here is about; that is, if the industry would properly disclose how things are happening and would be able to police itself properly with the new ethics codes that are called for by the Packard Commission, I would hope, then, that you could deregulate some of the overburdensome requirements that are now laid on the industry.

I think there is a lot of cost that goes into checking on defense contractors and laying on various requirements, but the industry must be willing to disclose up front to the Defense Department and to the Congress information such as the amount of profits they are making. The defense industry has done it in the past for the profit studies when they have been requested. I believe that they should be able to come up with a system that would give periodic reporting to the Defense Department, possibly verified by their own CPA firms. We proposed one such mechanism, but it does not necessarily have to be ours. I think that by full disclosure you could do away with a lot of the overchecking.

That is why I am not advocating bringing back the renegotiation board and a few other things like that which really go back to deregulating the defense industry.

UP FRONT MONEY

Senator EXON. What about paying more money up front; selecting, for example, General Motors, to build the new tank that we are going to start making 10 years from now and buy 50 of them to begin with. It would be at a very high cost, but at the end of the 50 we would have an arrangement with General Motors that all their technology, all the information that they have would be up front, and the large buy on the tanks thereafter would be on a competitive bid to where other people who could make the same tank would put out the bid.

I guess what I am saying is really throw it open to more competition. Would something like that work at least in more of our defense purchases than we are using now?

John, as a former distinguished Secretary of the Navy, you probably have had some experience in something like this. Do you think there is any merit to it?

Senator WARNER. I think what you are saying is that we share fully that base of knowledge so that the competition can then bid. We do much of that now.

Mr. BOWSHER. Actually there have been more programs over the years. I think the F-16 was a good example of a program where you really went for competitive comparison of actual aircraft. In other words, you gave money up front to different contractors, and they produced competitive aircraft that you could really look at and test.

Although you do run into the added cost, John, that you pointed out, in the out-years because of inflation, if what you have is an investment base with so many hot lines going at any one time I think the ultimate test is what you buy over a 5- to 10-year period.

In other words, I think that sometimes we focus too much on the individual cost of an individual weapons system. Consequently, we are not looking at whether we are getting really good equipment at an efficient cost over a 5- to 10-year period so that we end up, after we spend over $2 trillion, with a force that is well armed and well supplied.

If we could get more people thinking along that line, which would also pick up on your idea Senator, I think we might do better.

Senator EXON. Was the F-16 successful?

Mr. BOWSHER. No question.

Senator WARNER. We are proceeding now with the SSN-21 program in the Navy, where the only two yards that can compete are now building different sections with, I think, a total exchange of knowledge before the contract is let.

Senator EXON. Thank you. My time is up.

Senator WARNER. The point is well taken.

Chairman NUNN. Senator Wirth.

Senator WIRTH. Thank you, Mr. Chairman.

Mr. Bowsher, again, thank you very much. You always do such wonderful work and are a great help to all of us. We appreciate it, and I trust that you will let us know whenever we can help you and support your good efforts.

There have been a number of questions this morning that go back to your statement halfway through page 6 related to, "more realistically, limiting the number of new programs and eliminating marginal programs". You are coming back to us with the kinds of questions that ought to be asked about various programs, obviously, without making decisions about what is marginal and what can be eliminated.

Part of that also becomes a question as to how big the bow wave is. You mentioned a little bit later the bow wave. We hear about it over and over and over again. Can you give us a measure of how big the bow wave is? How do you go about explaining what the bow wave is?

Mr. BOWSHER. I think the bow wave you are facing looks to me like—the Undersecretary of the Army said that it would cost $100 billion more to buy out the Army's modernization program.

I think our 600-ship Navy report that we will be issuing will give you some idea of what we think the bow wave is for the Navy. And I'm just going to say, it's probably over $50 billion.

Mr. CONAHAN. I think that for the weapons in the system right now, we will require, according to the FYDP, over $750 billion to totally buy out that program.

Senator WIRTH. To buy out the Navy program?

Mr. CONAHAN. No, the overall DOD Program, the three services' programs.

Mr. BOWSHER. Would that include SDI, or is that over and above that?

Mr. CONAHAN. That is over and above SDI.

Senator WIRTH. That is $750 billion in comparison to what, Mr. Bowsher?

Mr. CONAHAN. That is the remaining cost to buy out programs that have been approved for production in the three services.

Mr. BOWSHER. He is asking for the amount that is above the FYDP cost. We do not have that, but we can provide that figure.

Senator WIRTH. How quickly can you take a look at that? I also sit on the Budget Committee. We heard yesterday from Mr. Epstein, from the Brookings Institute, that he believed that above and beyond keeping the budget at approximately a $300 billion a year level for defense, we have a $200 billion bow wave; even if we were to continue at our present defense budget level, we have an enormous number of unmet budget commitments. Without doing anything with SDI, without starting any new programs, we have already got programs for which we have no money.

Now, as we go into the fiscal 1988 budget, we're going to have some preliminary discussions very soon on this committee. We have, to understand it seems to me from your perspective, how big the bow wave is.

Mr. BOWSHER. I think we can do that. And I think you will find it will be somewhat—maybe close to what he was——

Senator WIRTH. Can you provide us with a sense, looking at it from your perspective and at the budget, this year and in the outyears, what kind of bow wave we are looking at?

Mr. BOWSHER. We will probably do it on two bases. One would be on what we think is beyond what is in the FYDP and then compare it to the budget at two levels, at the $300 billion level funding, and then at the 3-percent growth level.

Senator WIRTH. How soon could you do that?

Mr. BOWSHER. We could do that in another day or two.

Mr. CONAHAN. You opened up, Senator, by offering assistance. I think perhaps in doing this we will need an awful lot of cooperation from the services. We might need to look to this committee for assistance in gaining access to the information that's necessary.

Senator WIRTH. I cannot speak for the chairman and the ranking member, but I am sure that these are issues that they would be concerned about as well, getting a better sense of how big these numbers are.

I am not sure that people understand, either in this institution or certainly the public at large, how important this issue is.

Mr. **Bowsher**. I think it is your biggest single issue that you are facing, and the Congress is facing. And I think you are facing it, as you say, in the overall budget, like the budget committees.

The CBO is coming forward with their estimates of how you can get down close to a zero budget deficit. But they are assuming no growth for defense.

You have to look at what is in the pipeline and what needs to be bought out. Then I think you have to look at the SDI initiative. That then gives you a much more realistic picture of what dollars are involved, and what programs are involved.

Senator **Wirth**. When you do that, could you list—and you have to remember SDI—what you think are the other areas out there, and I'll give you at least one example that you and I have talked about in the past, and that is, the whole nuclear weapons production complex.

As you look at Savannah River, you look at Pantex, you look at Rocky Flats, and you look at Hanford, each one of those is a facility in search of modernization. And all of them, I think, from everything that I understand about them, are really creaking at the seams. And that there are some very significant commitments as I understand them for modernization and safety, that I know you all are starting to look at systemwide in that complex.

But that is another one that, just in my own backyard at Rocky Flats, I know that we're looking at somewhere between $1 and $3 billion. I do not say that in a cavalier fashion. I think it's documented: $1 to $3 billion. To upgrade Rocky Flats just to meet the standards of safety for workers, and the standards of security from outside problems.

That's just one facility. We are not doing anything new; just upgrading one facility. If safety and modernizaton problems existed there, what exist at Pantax? What exist at Savannah River? What exist at Hanford? And that's another area where we're going to have this problem coming down the line.

So we have at least two big ticket numbers, I think. SDI and the weapons complex. And certainly there are a number of other ones out there that are being discussed. Perhaps you could list those.

Mr. **Bowsher**. We will list the major ones.

[The information follows:]

As discussed earlier, our draft on the 600 ship Navy has been provided to the committee and it shows significant increases in operations and support costs. This will place greater demands on defense resources, increase pressure to defer planned procurements and contribute to the bow-wave.

Subsequent to the hearing, we met with committee staff to discuss changes in the FYDP, fluctuations in planned buys of weapons systems and their impact on the bow-wave. We are continuing to discuss these matters with the committee and will provide the results of our analyses at a later date.

Senator **Wirth**. I would like to come back on a second round. It would be very helpful if we could have that information rapidly. Whatever help we could provide in terms of working with the services to help you to get those numbers to us, we would be glad to provide. I think everybody up here, as we get into those budget cycles, has to have a sense of the size of the defense bow wave.

Thank you, sir, I will be back on the next round.

Senator **Exon**. Thank you very much.

Senator, you have just walked in the room and you are recognized. You came at the right moment.

Senator HUMPHREY. I will pass.

Senator EXON. Senator Levin.

Senator LEVIN. Thank you, Mr. Chairman.

Welcome to these gentlemen who I had the pleasure of meeting yesterday at the Government Affairs Committee hearing.

B-1 PROGRAM

First, on the B-1 program, you are doing an assessment, as I understand it, of what needs to be done to correct deficiencies. Can you add to your assessment and who should be paying for it?

Mr. BOWSHER. You mean between the contractor and the Government?

Senator LEVIN. Yes.

Mr. BOWSHER. We can look at the different issues on that. I'm not sure. I'll have to go back and check with the team as to whether they've done the work that would help us, and add that to the assessment.

Senator LEVIN. If you can't do that, would you let us know who should be doing it? It seems to me that's a critical issue.

One question is, what needs to be fixed? The other issue is, what should the taxpayers pay, and what should the contractors pay for these fixes?

I think we look to you to give us that assessment, or at least tell us who can give us the objective assessment on it. And if the contract provided inadequate protection in this regard, could you tell us where the contract or acquisition plans were flawed?

Mr. BOWSHER. We probably can do that.

Mr. CONAHAN. The contract terms will give us an answer to that question.

[The information follows:]

The B-1B Program Office manages the contracts of three associate contractors, Rockwell (airframe), Boeing (offensive avionics), and AIL (defensive avionics). The Aeronautical Systems Division's Propulsion Program Office manages the General Electric (jet engines) contract transferring engines to Rockwell as government furnished equipment (GFE). Each B-1B associate contractor has both full-scale development and production contracts with the Air Force.

Rockwell's full-scale development contract has a correction of deficiencies (COD) clause in both full-scale development and production contracts with cost caps of $119.9 million and $682.1 million, respectively. The share ratio for both contracts is 80 percent of COD costs to be paid by the government and 20 percent by Rockwell. All COD costs above these caps are paid 100 percent by the government.

Boeing has no full-scale development COD cost cap and is responsible for all contractual full-scale development costs. Its production cost cap (for Lots 4 and 5) is $20 million with the government's share being 75 percent and Boeing's 25 percent. All COD costs above the $20 million are paid 100 percent by the government.

AIL's full-scale development contract has no COD cap with AIL being responsible for correction of all design deficiencies. AIL's production contract has a $70 million COD cost cap. The Air Force pays for 80 percent of all COD costs within the cap and AIL, the remaining 20 percent. The Air Force assumes 100 percent of all costs above the $70 million.

At this time the costs to correct problems are being shared by other contractors involved and the government in accordance with the contract. However, the contractors have limited liability. In the case of the defensive avionics contract, it appears that the government will eventually pay for modifications to the system which are estimated at $400 million.

Senator Levin. On the bow wave issue, you have phrased it this way: That starting too many programs and overly optimistic cost estimating have both contributed to the bow wave phenomenon.

When you give your assessment to us that Senator Wirth has requested, are you able to break those two causes apart, or do you lump them together?

Mr. Bowsher. To do the quick work that I think Senator Wirth is looking for, we probably would not be able to break it out.

But we probably could break it out looking at the different SAR reports later on for you.

Senator Levin. I think that would be useful.

Also, following Senator Wirth's request, which he may have already requested, can you also estimate the size of the bow wave?

Mr. Bowsher. Yes, that's really what he was asking.

Senator Levin. To prior years. Could you compare this year's, or what now looks like——

Mr. Bowsher. Oh, yes. In fact, we did a report here about 2 years ago that did a 20-year look at this whole issue. We could certainly compare that. We have done some updating on that.

Senator Wirth. Is that a 20-year history of the bow wave?

Mr. Bowsher. That's right. And what we point out is how you have bought historically fewer units of different plans and missiles and things like that, because you had to literally buy it out on a stretched out basis.

That's one of the reasons why I think you are spending these huge sums of money over every decade, and we're generally not getting the numbers of planes and missiles and different programs that are either planned or that the services feel they need.

Chairman Nunn. May I ask a question here? I think this gets down to the heart of it, and I appreciate my colleagues pursuing this and your testimony.

Don't you think we're going to have to come to a point where a department or Congress is willing to eliminate marginal programs to pick up funding and increase production rates on what is left. Aren't we going to have to delay new starts rather than countinuing to stretch production lines on existing systems?

Mr. Bowsher. I think those are the three options. As I said earlier, Senator, I think it's awfully important to look at a 5 to 10 year period as to what we are getting for over $2 trillion of defense money.

Decisions that will be made to achieve this year's budget target amount—and this is generally how our system has worked for a good many years—will tend to be to buy a limited number of units each year. That means very high unit costs. That generally means that we buy only so much hardware over a 5 to 10 year period.

I think the new starts——

Chairman Nunn. You don't lose the efficiency by holding a new start back for 2 or 3 years anywhere like you lose the efficiency of cutting back on existing production.

Mr. Bowsher. That's right, but stretching all those existing programs is inefficient.

Chairman Nunn. Excuse me, Senator Levin, that won't come out of your time.

Senator **Levin**. Well, that's fine. That's a valuable use of my time.

AIRCRAFT CARRIERS

On the aircraft carrier issue, the Navy has estimated that there's a $3 billion savings to the taxpayers on the two carriers in then-year dollars. Have you looked at the $3 billion?

Mr. **Bowsher**. We are currently looking at it, and we should have a report here in the next 30 days on that.

Senator **Levin**. All right, would you add to that report what additional costs the Navy is going to have to pay because they are not spending that money elsewhere? For instance, what opportunity costs are resulting, what stretchouts could be avoided?

Take some examples in Navy aircraft if you want. Tell us, what is the cost in stretching our aircraft production which could have been avoided had the Navy put that money there.

Mr. **Bowsher**. Well, I think the Navy has identified a number of programs where they feel the money is coming from.

Senator **Levin**. I'm not asking you take the Navy's statement that it's coming from the service life extension program or whatever. That's my next question, by the way.

I'm asking you to tell us where we could have a more efficient production rate on Navy aircraft, thereby saving how many dollars, and then comparing the investment in the carriers, which allegedly saves us billions, to what it's costing us in stretchouts by not having an efficient production rate.

Now, you can do that on Navy aircraft. You can do it on anything else if you want. I don't think that money is earmarked for the Navy, so you're not limited to the Navy, but you can start with Navy.

My understanding, for instance, is that although we plan to buy 926 combat aircraft for the Navy from 1987 to 1991, that we're now going to buy only 545 combat aircraft. If that figure is correct, what is the cost to us in the inefficient production of aircraft? And how does that compare to these alleged savings by building the carriers earlier rather than——

Mr. **Bowsher**. I get your point.

Senator **Levin**. Would you also take a look at what the Navy says it's not going to do in order to build the carriers. Take a look at the service life.

Mr. **Bowsher**. We are planning to do that.

Senator **Levin**. Are they giving up the service life extension or just delaying it?

Mr. **Bowsher**. I think what they're doing is cutting it back. In other words, the amount of work they were planning to do. But we will check that. That's part of our review.

Senator **Levin**. Thank you, Mr. Chairman.

Chairman **Nunn**. Senator Levin, I interrupted you. So if you need some extra time——

Senator **Levin**. Well, I think that pretty well covers it.

Chairman **Nunn**. Senator Wirth, you have had your first round?

Senator **Wirth**. I have indeed.

Chairman **Nunn**. Senator Humphrey.

NATION'S MILITARY FORCES

Senator HUMPHREY. Mr. Bowsher, you offer the opinion that our Nation's military forces are stronger, more capable, more ready than at the beginning of the decade.

Going beyond that, how do you see the trends?

Mr. BOWSHER. Well, I think the limited money that it looks like defense is going to have is going to make for very tough decision making as to where to spend the money.

I think that you probably will not have enough money to do everything that the services feel they need. So, I suspect that you won't have quite the upward trend on some of the increased capabilities we've had in the last 5 or 6 years.

But you've got to keep in mind of course, the overall budget deficit problem that the country is facing.

Senator HUMPHREY. How do you characterize the trends?

Mr. BOWSHER. Well, I would say——

Senator HUMPHREY. Are we going to be able to keep these gains that we've achieved, or are they going to slip away from us?

Mr. BOWSHER. The best answer I can give is that I'm not sure whether we'll be able to keep them. I think there is a possibility that some of the gains might slip away, depending on the funding levels and how those funds are used.

Senator HUMPHREY. You cite the dramatically improved quality of personnel as the best example of progress made over the last 5 years. Is that all that we've bought with this substantial increase?

Mr. BOWSHER. No, you've bought a fair number of weapons systems.

Senator HUMPHREY. Let me rephrase the question, because what I'm getting at is, how much value, apart from personnel, where you can almost always see a dramatic return on your investment—it's just about impossible to waste money on personnel, but it's easy to waste money on systems. How much value have we gotten for the rest of the money we've spent? How would you characterize that?

Mr. BOWSHER. I would say that you have gotten value in many areas such as housing and in making living conditions and working conditions for the people in the services better. I think that money has been well spent in that area.

Some of your newer weapons systems, like the Trident system, where the system is working, I think you get great value.

But, when you get something like the B-1 bomber and the Bradley vehicle, where you run into problems that might have been avoided by better testing up front, then I think the added value is more questionable.

The big areas that seem to be still lacking is being corrected is substainability. In the area of sustainability, there are two things that are awfully important.

One is airlift and sealift. There has been some improvement there, but nothing compared to what you need for a NATO war, or for other contingencies.

The second thing is that some of the sophisticated weaponry that go with the primary platforms have been bought in inadequate quantities to give you a greater degree of sustainability. I think you're probably hearing from the CINCs and the people out in the field on that issue.

Senator HUMPHREY. Well, you seem to be implying that there has not been a prudent or optimal balance between sustainability and procurement, particularly of systems.

Is that a fair assessment of your testimony?

Mr. BOWSHER. Yes. I think the way I'd put it is that the emphasis has been on the major platforms, the major systems, which often the military feels are important to get when they can through the budget process, and they'll hope to get the other things later.

This is a strategy that many within the Department pursue. At the same time, I think when you have spent as much money as we've spent in the past few years, it's surprising to some people that you still have the shortages that people will tell you about, or tell us about.

Senator HUMPHREY. Overall, do you think the defense budgets have been wasteful in their allocations of resources?

Mr. BOWSHER. I wouldn't say wasteful, as much as I would think that there was a tendency in the early eighties to think that the budgets would always be huge as much as they were growing in the first 5 years of this decade.

Consequently, more program was pushed in there than you are going to be able to buy out on an efficient basis in the next 5 to 6 years.

I think that's the biggest concern that we have. That is also what makes it very, very difficult for the decisionmakers in the Defense Department, and also for the members of this committee and the Congress, in making the tough decisions that are going to be made in the next 5 years.

Senator HUMPHREY. Well, it's human nature to be optimistic about everything but about future budgets. And to the extent that our problems today result from over optimism about future budgets, then I guess there's a certain amount of blamelessness involved.

But how are we ever going to overcome these problems that are induced by human nature, these problems in defense spending that are produced by human nature? Committing to systems and hoping that later you can get the sustainability, the operations money, the sustainability money? That's a human nature problem. Generally counting on much larger budgets in the out-years, in the 5-year defense plan, the outer years of the 5-year defense plan, that are ultimately realized. That's a human nature problem.

How are we ever going to reform this system so that we are spending this money just about as wisely as we can? Is there any hope?

Mr. BOWSHER. Well, I think there's hope. I'm an optimistic man by nature, so I think there's hope. But it hasn't happened yet.

I think your point is well taken. One of the problems in defense is the planning processes. One of the great dilemmas every President that comes into office faces is that he looks at the current service budget for the overall Government and always comes to the conclusion that he can balance the budget in the fourth year.

That is because the current services budget always shows the dificit coming down. But what is happening is that you have a planning process that keeps everything level on the expenditure side of the budget, shows the great growth that we're going to have in the economy, and therefore we can afford all this, or we can wipe out the deficit.

That's generally how President Carter got stuck with that situation. I think President Reagan came in, looked at the numbers, and got stuck with that same prediction. And I think Secretaries of Defense fall into the same dilemma when they work with the FYDP in the planning process, which as I say, gives them great visibility. I think it's an excellent system.

But if the Secretary of Defense, or the Office of the Secretary of Defense, is not rigorous in sorting out the programs that come up for approval to go forward, then, pretty soon, you've got too much program.

I think that's the dilemma that the Defense Department has fallen into time and time again in the last 20 years.

Senator **Humphrey**. My time is up, but I just want to say this in closing. I think somehow, we in Congress, have got to find a way to take these out-year numbers and FYDP more seriously, and maybe even somehow institutionalize them because it's just a dart board, these last couple of years. No one pays much attention except to use it as a justification for front-end loading.

Somehow in the Congress we've got to further institutionalize this 5-year defense plan, so we're taking seriously these outer numbers and committing to them as far as you can commit in advance.

Right now, they're not taken seriously, and there's no commitment to really meeting those numbers when finally they come along.

Chairman **Nunn**. I agree with you, Senator Humphrey. I don't know the answer to this problem, but I think you're right in terms of raising the dilemma we face and the problem we face.

Senator **Humphrey**. I think we've got to somehow within the Congress institutionalize the situation so that these 5-year plans are much more seriously taken.

Mr. **Bowsher**. That would be one of our strongest recommendations, just what you're proposing, just what you've been trying to get, a longer term view of this budget.

The people in defense, and in the executive branch, tend to want to keep what they call the flexibility of the future. They say that these are strictly planning numbers, and therefore, they shouldn't leave the building, or they shouldn't be taken as serious as you're proposing.

But the truth of the matter is that they determine the ballgame 2 or 3 years down the road.

Chairman **Nunn**. You know the other thing that's on this same line is that these numbers, the way you choose a weapon system to begin with, and the competition depend on the rate of production.

Mr. **Bowsher**. That's right.

Chairman **Nunn**. The overall numbers of weapons that are going to be produced within a given timeframe. If you said that you were going to produce half the number of F-15s over the first 7 years of the production, or any other system, that you originally anticipated, you might not have chosen that system to start with. It gets down really to the basics of what systems you're choosing in the procurement cycle.

Mr. BOWSHER. And the procurement plan determines a unit cost generally in those opening numbers that are used to sell the program; no question about it.

Chairman NUNN. It's the foot in the door, and any one who doesn't play the game gets left out of the cycle. If someone over there with a major system came in and really projected what they thought the number of units of that system were going to be, let's say they were a program manager and they looked at the budget and realistically, they got GAO to advise them, how much, based on historical trends, do you think we'll be able to produce and what number of years, and you told them and they used that for their planning guide, and that program would be down the tubes, while those that project large numbers of units compressed in shorter periods of time would be funded. So the system feeds on itself. Right now, it seems to me that unless the whole framework changes, an individual program manager can't afford to change the projections.

Do you follow what I'm saying?

Mr. BOWSHER. I follow exactly what you're saying. And that's exactly the way the ballgame is played over there.

Chairman NUNN. Second round, Senator Wirth and then Levin.

Senator WIRTH. Thank you, Mr. Chairman.

BOW WAVE

I guess I don't really understand why you were so surprised that this bow wave exists. All one has to do is read David Stockman's book. You can see very clearly that the bow wave is there in defense, just like it is in taxes and the whole program that was really laid out in the early 1980's, that if we go in and you cut revenues dramatically in this fashion, and you billow defense, you will squeeze out other programs. That strategy is now playing out here. We are left not having taken seriously the numbers that were clearly projected, I remember, in the Budget Committee in the House.

The numbers were right out there. There was no mystery to this. One can say it was a very clear strategy an enormously successful one for this administration.

Mr. BOWSHER. If I can interrupt, Senator, there's a great paragraph in that book where he says—you know, he went over there on a Friday night, and he committed to a certain number. And he didn't realize that they were talking about constant dollars versus current dollars.

So when he finally got back to OMB some many days later, they explained just how many trillions of dollars that he had committed to. And then he says in the book that he assumed that he could go back and discuss it with Cap Weinberger, former director of OMB, and get it kind of sorted out.

What he underestimated was how quick the services and the bureaucracy at the Defense Department would pack the program into the PPBS system to support what he had just agreed to.

And that's exactly what happened over there. And from that day on, you had more program than you could afford.

Senator WIRTH. It might be interesting as well—I don't know if this is something that can be done with ease—but in addition to the bow wave description which you were going to give in response to the questions that Senator Levin and I were asking, to say what would have happened if the administration had gotten the Congress to support fully its request for defense spending, starting in 1981?

Would the bow wave be more than a bow wave? Could we say that the bow wave is what we have now; if it had been what the administration wanted, we would have had a tidal wave?

Mr. BOWSHER. Oh, that's right.

Senator WIRTH. Isn't that right?

Mr. BOWSHER. That's correct.

Senator WIRTH. And that all of the beating of breasts that's occurred relating to the terrible job that the Congress has done on the defense system probably has served us from even long term greater damage to the Defense Department, and to our defense spending and procurement program?

Mr. BOWSHER. I think that's a very fair statement.

Senator WIRTH. Let me jump quickly to a statement that you made, I believe yesterday, in front of Government Operations, relating to inventory control in the military.

Mr. BOWSHER. Yes.

AIR FORCE SPARE PARTS

Senator WIRTH. If I read that correctly, what you were saying was that inventory control was so bad that we might have 40 to 50 percent more or 40 to 50 percent less than we're being told we do have in terms of Air Force spare parts, ammunition and so on.

Would you like to expand on that a little bit for us?

Mr. BOWSHER. Yes, we would be pleased to do that.

What we were saying is that when they take inventories, actual physical inventories, they are generally finding that they are about 30 percent off. Now, that does not mean it is 30 percent short. In other words, it could be over; it could be under.

We do not have a dollar figure as to what the shortages might be. But when we do have—and to a certain extent, we were using their own numbers there—is really not enough control over inventories, to the point that when you do take the actual counts, it is coming out much closer than what your records are showing.

The way we came to all this was the work we did for Senator Wilson. If you remember, there was some theft out of the Navy supply centers on the West Coast. The theft of those materials, some very key parts, were even traced by the FBI and others to sales into Iran and places like that.

So Senator Wilson raised the question of how much more is going on. He asked us to look at quite a few military bases and supply centers, including some in Europe.

What we found was a lack of physical control, and a lack of good inventory control in most of these places.

INVENTORY CONTROL

Senator Wirth. As we move into the markup of the defense bill and budget act, does this suggest that there ought to be changes made in the direction that goes to the Defense Department from this committee related to inventory control?

Or are there specific recommendations that come out of this that we ought to be pursuing?

Mr. Bowsher. I think there are specific recommendations in this area. I think we have them in our report.

Senator Wirth. Was that the report that went to Senator Wilson? Or is that the one that went to Government Operations?

Mr. Bowsher. That is the one that went to Senator Wilson.

Mr. Conahan. To Senator Wilson. I think we need to point out that the Department of Defense is very cognizant of this problem.

They're very concerned about it, and about 1½ years ago, appointed a Deputy Assistant Secretary with a full charge of trying to correct these problems.

They are diligently working on it, and I think we have seen some improvements.

We have particularly seen improvements in ammunitions and explosives, which are the more troublesome areas.

Senator Wirth. I am new to this committee, and I don't want to get into ground that's already been plowed. I was just struck by the nature of your discussion yesterday in front of Government Operations on this inventory issue.

Mr. Chairman, if this is an issue you have been into before, I don't want to pursue it any more. If, in fact, the committee and the Defense Department have been focusing on this issue with the kind of care that it would appear to deserve——

Chairman Nunn. We leave all issues unsolved, so if you want to solve it——[Laughter.]

Senator Wirth. Is this something that we might get from GAO, a summary of what those recommendations are?

Mr. Bowsher. I would be pleased to send these reports. It is a very serious area, and Frank is absolutely right that the Defense Department has taken it seriously.

But when we did these reviews and reports for Senator Wilson, why not only was it really a bad situation as far as the controls over the items, but where some of these items were ending up was scary.

And that is one of the reasons that he asked us to do it, and Senator Glenn has asked us to do further work.

[The information follows:]

Copies of the following reports, and a summary of ongoing assignments related to DOD inventory management were provided to Senator Wirth and to the Committee staff.

Inventory Management.—Problems in Accountability and Security of DOD Supply Inventories (NSIAD-86-106BR; May 23, 1986)

Ammunition and Explosives.—Improved Controls and Accountability at Fort Bragg (NSIAD-84-44BR; November 13, 1986)

Air Force Logistics.—Improvements Needed in Managing Items Critical to Combat Capability (NSIAD-86-100; June 5, 1986

Senator Wirth. Well, might we get a summary? Again, Senator Glenn is chairman of the Government Operations Committee, and a member of this committee. But if we could have a summary of what steps we ought to be taking working with the Pentagon. It seems to me we are at a point in the cycle now to introduce that.

Let me ask you a final question if I might, and that relates to the industrial base. You talk a good deal, concerning the affordability of Navy programs and about the impact that that has on the industrial base.

If I were looking at the industrial base of the country, thinking about our research capability, thinking about private laboratories in the private sector as well as the Government, I would look at SDI, and say what impact is that having on our industrial base? What impact is that having on basic research, on the availability of research dollars, on the flow of young engineers and young assistant professors to basic research laboratories, or to our basic research priorities?

Mr. BOWSHER. That's a big job.

Senator WIRTH. OK, it's a big job.

Mr. BOWSHER. I can see it coming.

Senator WIRTH. No, no. I'm just asking you, have you thought about that? I mean, we've gone from, as I remember, less than a billion dollars, to $1.4, to $3.1, to $3.5, and now the President is asking for $5.8 billion.

Mr. BOWSHER. I don't think there's any question that the issues you raise are going to be heavily impacted by SDI.

Senator WIRTH. Who's looking at that, do you know?

Mr. BOWSHER. I'm not sure. Let me check with OTA and see if they're looking at it, and what we might possibly be able to do about that.

Senator WIRTH. It just seems to me that this is really right on the cutting edge of our industrial capability in this country. We do not want to talk about an industrial strategy or a national industrial strategy. We agreed that we were not going to talk about that.

And what we put into SDI may be robbing Peter to pay Paul in some fashion. And I am not sure that we have begun to focus on that. Maybe we might be able to receive a memo back from you if you could ask OTA.

Mr. BOWSHER. Let us take a look and see if anyone else——

Senator WIRTH. Go on patrol a little bit and let us know. Would you let me know about that?

Mr. BOWSHER. Sure.

[The information follows:]

SDI—IMPACT ON INDUSTRIAL BASE

Neither the Office of Technology Assessment nor the Congressional Research Service have studied the affect of the Strategic Defense Initiative on the future of the U.S. industrial base and whether SDI research requirements are diverting a disproportionate amount of research talent and resources away from our civil sector needs.

Senator WIRTH. I appreciate it. Thank you very much, Mr. Chairman.

Chairman NUNN. Senator Warner.

Senator WARNER. Thank you very much, Mr. Chairman.

MANPOWER COSTS

I am very much interested in the comments on page 13 about the costing on this manpower issue. Assuming that the force structure would remain constant, and the first term versus career personnel would remain unchanged, do you think you could suggest what type of reduction in first term pay would be necessary in order for conscription to save money?

Mr. CONAHAN. Our initial look at it, you are going to get a figure around 50 percent reduction. That really gets everybody's attention.

Mr. BOWSHER. Let me point out, Senator, that what we are doing now is some work here that Senator Stevens asked us to do. In doing this there were certain assumptions, like a 24-month period that were specified in his request.

Senator WARNER. All right, I will ask this as a supplemental question, or maybe you are going to address it anyway.

Then, also, in the context of your stating here, quote, "GAO is currently evaluating numerous studies that touch on this issue." Are you also touching on this universal training as we used to call it, across-the-board, where everyone goes?

There are several names for it. It seems to me that the American public is highly intrigued with that issue. And Mr. Chairman, I think it would be well advised if this committee, with the assistance of GAO, could at least outline the parameters of it so that there can be a national debate on the issue.

Mr. BOWSHER. We can certainly look at the studies that have been done, and maybe do some additional work.

Senator WARNER. Well, I'll formalize this request by a letter to you.

Chairman NUNN. I'll be glad to join you on that. I think that's a good suggestion.

Senator WARNER. The chairman and I will join in a letter formally asking you to broaden your scope. Maybe you could do an independent study. This will attract so much attention and it shouldn't be buried, Mr. Chairman.

Mr. BOWSHER. It might be better to do that as a separate study, but build on our ongoing study.

Senator WARNER. You can do it as you see fit. But people are fascinated with this issue. Time and time again I'm called on to address it.

I certainly would welcome your further comments on it.

Now, based on your 4 years in the Department of Defense, and indeed, you served there under several distinguished secretaries, and one lesser distinguished Secretary of the Navy, you know the budget process as well as anybody currently in Government service.

As I view it, it seems to me the United States, irrespective of the administration or the Secretary of Defense, should try to stabilize this annual figure for defense. Each Secretary wants 3 to 10 percent real growth. The perturbations, as you know from your experience in that process, are enormous and we have a substantial number of people who have to work constantly on the 5-year program.

Could you just give us a little flavor of your thoughts about stabilizing that defense figure now, and then maybe amplify later as you see fit?

Mr. **Bowsher**. Yes, I would be pleased to. Let me first point out that I served under three very distinguished Secretaries of the Navy including yourself.

Senator **Warner**. And how many Secretaries of Defense out of curiosity? I had three. You had how many?

Mr. **Bowsher**. Three. McNamara, Clifford and Laird.

Well, I think that is the key, John. If we could have a stable program over a decade, let's say, of buying out our defense program, we could get far more for those dollars than we get with the present budgeting planning system.

And as you say, many times, the emphases is on what individual Secretaries or individual people who serve over there want. Consequently, we have spent a lot of money on starts and stops and having to cut back and then all of a sudden surge forward.

And really, what you have is a budget game. Our whole budgeting process needs to be looked at, not only from the defense area, but from some of the other areas, in our Federal Government, to really try to get more for the money we're spending.

We have a trillion dollar operation. We have a budgeting and accounting process that goes back years and years. And I've argued strongly that it needs to be reviewed, simplified and modernized to give the decisionmakers better data.

One thing that would be a great asset is if we all saw the same numbers. One problem, and this goes back to David Stockman's book, is that he thought he controlled the numbers. He carried his black books around all the time, and he thought that he controlled the numbers.

I remember last year, when we had a big hearing on the Gramm-Rudman process, Senator Hollings said that we're all here with the Gramm-Rudman process because Mr. Stockman's numbers didn't prove to be as exact as some of us were led to believe.

I was over in Australia recently at a meeting of other auditors general. They have a system that they've been working on for 15 years where they can call up on a terminal any program to see where it stands. The Members of Parliament look at the data; the Members in the Treasury, like our OMB, can look at the same data; the people over in the Ministry of Defense can look at the same data.

In other words, that's the official record for that program; the budget, how much money has been spent, and everything like that.

I think that if we're going to spend the monies that we already spend on all the systems that we have in the Federal Government, we ought to get out one that can give the decisionmakers, including the Members of Congress, the proper information on these major programs, and not have everybody running around with different numbers.

Senator **Warner**. Here's a portrayal of the oscillation of our defense budget from 1971 to 1987. I believe you share the view as does the chairman, that this is probably the single greatest cause for the inefficiencies in the acquisition process.

Mr. **Bowsher**. I think it is, yes.

Senator **Warner**. Of course, the budget is driven primarily by threat considerations. We must always keep the threat as the paramount issue. It would be very interesting if we could, in the final 2 years, of this administration initiate a program that would be accepted by the next administration. Then we could try to flatten out this curve as much as possible. I thank the witness, and I certainly have enjoyed your testimony. I'll make a short statement on the floor today introducing it and renouncing the whole thing.

Chairman **Nunn**. Thank you, Senator Warner. Senator Levin.

Senator **Levin**. The comments of Senator Warner, I think, are shared by a lot of us. God knows how you can bind future Congresses or future administrations to the current Congress or the current administration's priorities.

No. 1, I'm not sure that there is an answer to that problem.

In terms of your getting single sources of information in Australia, I think they've got a parliamentary system in Australia; they don't have a Congress and an executive that are elected at different times, from different parties, with different philosophies, with checks on each other.

So it's a lot easier, I would think, in a parliamentary system, to have one computer that gives everybody the same information.

Our people tell us the executive branch is wrong. We're supposed to be a check on the power of the executive branch. They tell their people that our branch is wrong; they're supposed to be a check on our power.

We've got two Houses that check each other. That's the way we built this system, and we don't have that in Australia. They have an upper house, as I remember, but it's not a check on the lower house.

So you've got a built-in disruption of the exercise of power in this country at various levels that has caused this duplication and conflict.

And God knows how you'd get to one computer terminal, including the House, Senate, both parties in the House and Senate, executive plus Congress. I won't even add the judiciary; that's a different headache.

Mr. **Bowsher**. But you see, actually, over in the executive branch, they're always fighting over the numbers too. If you could sit in on their budget meetings, one person is constantly saying, this is the number——

Senator **Levin**. Well, I've asked to sit in on some of their meetings.

We'll, in any event, I think you're right. I'm not sure what the solution is, given our Constitution and given our history.

UNACCOUNTED MATERIEL

At any rate, let me ask a couple of questions, especially the question of unaccounted for materiel. This subject is very disturbing, frankly, to those of us who care particularly, and are responsible for our readiness. Those of us who serve in that area, and feel that a lack of readiness is probably the area of greatest threat to us, are thrown off balance by this.

We're trying to put more money into readiness, for the very things which you say are unaccounted for. And it makes it difficult for us to make our case when we read that these kinds of inventories are completely missing or might be completely missing.

And I wonder if you can tell us a little bit more about your figures. Are you saying that the inventory reports that we get are inacccurate by as much as, say, 50 or 60 percent, and that means that the figure we receive in these reports is twice as much as there really is?

Mr. BOWSHER. No, the figures are the opposite. In other words, it is the 60 or 70 percent that is correct, and about 30 percent where you've got errors.

Senator LEVIN. Well are you saying then, that if we're told, we have 100 of something, that in fact, we might have 180?

Mr. BOWSHER. You could have more than what your records show, that's right, and that would still be counted as an error.

Senator LEVIN. So the problem isn't that we necessarily lost it, or that, it's stolen, but that we don't know what we have.

Mr. BOWSHER. Our additional work, and I'll let Frank go into more detail on this, but our additional work on this showed that we have had a fair amount of losses and thievery. But you have to be very careful of that 30-percent figure because that's both overages and underages.

Senator LEVIN. Now, when we went through this last year, it seems to me, we pressed somebody—and I don't think it was you—to provide an estimate whether the bulk of missing materiel is stolen and lost, or whether it's just unaccounted for; it's somewhere out there, we don't know exactly where.

And I think we were told that it was a relatively small percentage that was stolen or missing, but that it was just somewhere they couldn't put their hands on right away.

Mr. BOWSHER. Yes, I don't believe that was us last year that you're referring to. But let me ask Frank to answer your question, Senator.

Mr. CONAHAN. No, I don't think that we would want to say that a large portion of the discrepancy in fact has been lost or stolen.

But I would say that the Department of Defense is not in a position to say where they stand on that.

I think what we need to do is take a look at the record inaccuracies in tandem with the physical security situation at some of these places.

We've done work that shows that physical security needs to be strengthened by quite some measure in order to have the kind of security over these inventories that we need to have.

Senator LEVIN. I agree totally with what you are doing. I just want to try to put it in a larger context, if I can.

I know that our chairman and the ranking member have reviewed your testimony relative to the 600-ship Navy. You have testified that we will have a 600-ship Navy by 1989, but that fleet will not be the mix of ships that our strategy requires.

Is it my understanding that given the current plans there is still a shortfall of certain necessary ships relative to what our strategy would require?

Mr. Bowsher. That's right. We looked at the Navy's mix. We did not come up with a separate mix. It was strictly their mix of what they thought should be the 600-ship Navy, to make up what they call their minimum force necessary to execute the maritime strategy.

Then what we looked at was the plan to buy those ships. We come out in this report saying you're going to have a shortfall or a bow wave. And it's primarily in——

Senator Levin. No, I followed that even though I wasn't here; I've been briefed on that. My question is, if there's a shortfall in some categories, doesn't it follow that there must be a surplus in other categories because you're dealing with that fixed 600?

Mr. Bowsher. There might be some surplus in other categories. But I think I'd like to point out that the dollars will be bigger on the——

Senator Levin. Of course, on the shortfall ships than in the surplus ships. That's obvious. The perception that is intended to be created by the number 600.

My question is this, when you supply that analysis for our chairman and for Senator Warner for the record would you include not just where we're short comparing what we're going to buy to our strategy, but also where we're in excess?

Mr. Bowsher. Sure.

Senator Levin. Finally, if I could, on a profit policy issue, I think you proposed legislation to us last year—I must apologize, I don't know what happened to that? Was that introduced, that proposed bill?

Mr. Bowsher. No, not on the profit policy.

Senator Levin. OK, if you were asked to propose legislation now, would it be the same bill?

Mr. Bowsher. Well, we're not sure. We have an exposure draft out to the industry right now, and all the associations. We are in the process of getting their comments.

When we get their comments, we might want to modify some of our thinking. But we will have that to the Congress shortly.

Senator Levin. Real good. Thank you so much.

[Questions for the record, with answers supplied, follow:]

Questions Submitted by Senator Sam Nunn

FULL FUNDING FOR THE CARRIERS

Chairman Nunn. Mr. Bowsher, I am surprised at the way the Navy is proposing to fund the carriers. The Navy seems to be buying these carriers on the installment plan, rather than buying them consistent with the principles of full funding.

Mr. Bowsher, how important is it to observe the full funding principle for procurement? Do you think it is sound fiscal policy to buy any weapon system on the installment plan? Do you know of any other major system in this budget where we are not observing the principle of full funding?

Mr. Bowsher. The full funding concept originated in the early 1950's to cope with budgetary problems in the Navy's shipbuilding programs. Construction of a ship for the Navy usually takes from 3 to 7 years. Prior to the use of the full funding concept, the Navy shipbuilding program operated under contract authorizations with funds appropriated in annual increments as estimated to be required for contract expenditures during the budget year. Under the full funding concept, funds were provided at the outset for the total estimated costs of a given item. In 1961, the budget for the shipbuilding program expanded the concept to include what was called "end cost" budgeting. Under this concept the amount budgeted included such growth factors as design and minor characteristic changes and changes in labor and material rates which would affect costs during the construction period.

GAO has taken the position that the full funding concept has encouraged people to be conscious of the importance of cost estimating and of the need to include all applicable costs in budget line item requests.

We believe that for the Congress to efficiently allocate resources, the demands for those resources must be presented as consistently and realistically as possible. The ultimate cost of discrete programs and projects should be readily apparent so that they may fairly compete against one another. We believe that complete responsibility for a project cannot pass from the Congress to the agency charged with its execution until the project has been fully funded.

The full funding concept has a significant impact on congressional decisionmaking. The concept entails the provision of funds at the outset for the total estimated cost of a given item. This gives Congress and the public knowledge of the full dimensions and costs of any item when it is first presented for funding. We believe this knowledge facilitates congressional decisionmaking with respect to funding priorities within the budget year spending ceiling. Programs compete on a more equitable basis under the full funding concept since it emphasizes the full federal investment involved in each new start. Incrementally funded programs enjoy an advantage in competing for dollars in that only a portion of their total cost is requested each year. The fact remains, however, that once a commitment is made, the federal government may find it difficult to terminate the project. Therefore, full funding would increase Congress' initial control and oversight over total spending and outlays in future years.

The Navy has requested, and the Congress approved, advanced funding prior to full funding authorization for its major ship construction programs. According to the Navy, this practice ensures that material, equipment, and systems are available during the ship construction period. For example, in fiscal year 1977 the Navy received $350 million in advanced funding for CVN-71, whereas the aircraft carrier was not authorized until fiscal year 1980. Similarly, in fiscal year 1982 the Navy received $475 million in advanced funding for CVM-72 and CVN-73, but authorization and full funding was not provided until fiscal year 1983. While the Navy may not define such a practice as incremental funding, we believe that this practice, however defined, makes it difficult to terminate the project once this amount of money has been invested.

SUSTAINABILITY STOCKS

Chairman **Nunn**. Mr. Bowsher, in your statement (page 2-3) you state: "Of equal concern is whether our stores of ammunition, spare parts and other material needed to fight over a prolonged period are adequate." You go on to note: "The Chiefs of the warfighting commands continue to warn that because they are short of critical spare parts and ammunition, our forces would be hard pressed to fight intense combat for a prolonged period."

Last month, Admiral Hays, Commander in Chief of the U.S. Pacific Command testified that for many of his most important munitions stocks, he has only "days" of supply.

Have you analyzed this problem? Are we in that serious shape in terms of sophisticated munitions? (I am not asking about old munitions, but the new sophisticated items.)

If Admiral Hays is correct, how would you evaluate the balance in the defense program? Is it balanced between sustainability, readiness and investment?

Mr. **Bowsher**. The questions you raise are extremely complex and focus on the fundamental decisionmaking process within the Defense Department. In our opinion, this fundamental process has not been fully examined and addressed by either the executive or legislative branch. GAO has evaluated and reported on specific aspects of this issue—for example, our classified report on NATO munitions (C-NSIAD-86-14FS; February 28, 1986) and our reports annually to the Appropriations Committees on DOD's ammunition budget. However, GAO has not evaluated the defense budget in it totality to reach an independent judgment on whether a proper funding balance exists among the military services, between conventional and strategic forces, or between sustainability, readiness, and investment.

Notwithstanding severe shortages of specific sustainability stocks, such as munitions, there are often valid reasons for not providing funding for specific items. For example, last year GAO recommended that the fiscal year 1987 defense budget request of $4.9 billion for ammunition items be cut by $1.6 billion—nearly 33 percent. These cuts were recommended for a variety of reasons, such as, inventories exceeding stated requirements, the inability to meet production schedules, reduced contract prices, and unresolved technical problems with the ammunition. DOD has often agreed that funding requested for the specific line items could not be used effectively, but it has argued that these funds nonetheless should not be cut from the ammunition accounts. DOD argues that instead, these funds should be used to buy other types of ammunition. We do not necessarily disagree with DOD's argument, but we believe that the military services should be required to specifically justify such transfers.

A recent request we received from the House Committee on Appropriations is indicative of the growing concern within the Congress about the balance within the budget between the sustainability needs of the unified commanders and other budgetary demands. Specifically, the Committee asked us to evaluate the following issues:

1. What regional warfighting strategies have each of the unified commanders developed to combat the threat faced by their commands?
2. What additional resources are required to implement each strategy, how much will they cost, and over what period of time will they be acquired?
3. To what extent does the fiscal year 1988 DOD budget request reflect the additional requirement?
4. What United States ally commitments are critical to carrying out the planned strategies and to what extent have they been fulfilled?
5. What amounts, if any, does the fiscal year 1988 DOD budget contain to compensate for any ally shortages?

TOO MANY NEW STARTS

Chairman NUNN. Mr. Bowsher, you note in your testimony (page 5) that "historically, too many weapon systems have been stated or proposed for the limited funding available, and often the cost estimates for the systems have been overly optimistic." You argue, rightly I think, that this causes the many stretchouts we see in the budget.

You also note that one of the key objectives of the so-called Carlucci initiatives was to buy systems at economic production rates.

What happened? Why didn't the Services follow the Carlucci initiatives? Did OSD drop the ball by failing to monitor the Services to see that they followed the Carlucci initiatives?

How do we deal with the issue of new starts and inefficient production rates?

Mr. BOWSHER. The purpose of this "Carlucci initiative" is to reduce the cost and time needed to field a weapon system by producing systems at more economical rates.

The Deputy Secretary of Defense established a high level management working group in June 1983 to oversee efforts under this initiative. The working group's two major objectives were to define economic production rate and to increase the visibility of this issue in the budgeting process.

In November 1983, the working group officially defined various production rates, including the minimum economic rate, and identified 50 major systems to monitor efforts to fund systems at or above this minimum economic rate. The working group defined this rate as that for which a "* * * further reduction in quantity incurs an inordinate increase in unit cost with an unacceptable return on investment." In early 1984, the working group disbanded and transferred the monitoring activity to OSD as part of OSD's budget review functions.

DOD has made some progress in funding systems at economical rates. Of the 50 weapon systems OSD monitors, the percentage funded at least at the minimum economic rate increased from 48 percent in fiscal year 1984 to 57 percent in fiscal year 1985. DOD assessments of weapons; alternative production levels must also include a variety of other factors, such as whether the weapon system is experiencing technical problems that would preclude full-scale production. However, among the major inhibitors to producing weapons economically are insufficient funding and year-to-year fluctuations in funding. This suggests that fully implementing the realistic budgeting and program stability initiatives could result in greater production economies.

According to DOD, program quantity reductions can occur not only to fund other systems at more economic rates when budgets are reduced, but for several other reasons, such as technical problems and program changes. However, DOD reports clearly show that program quantities for some programs were reduced below earlier plans primarily to fund other systems, thus leading to uneconomical production rates and higher costs for the programs reduced.

A GAO report released in January 1986, entitled, "DOD Can Use Economic Production Data More Effectively" (GAO/NSIAD-86-37) noted that OSD has not provided adequate guidance to the military services for computing economic production rates. This has led to inconsistently reported production data within and among the military services. In addition, DOD is providing limited visibility to economic production data in the budgeting process. These problems have limited the usefulness of economic production data as a budgeting tool. The 50 weapons OSD monitors include 37 of the 99 systems identified as major by DOD's December 1984 Selected Acquisition Reports. This leaves 62 major systems for which OSD is not routinely collecting economic production data. For some of these systems, such as ships, collecting such data would not be practical. Nevertheless, OSD had not required the services to report unit production cost data for weapons at alternative production levels even when collecting such data was practical. We believe this information is necessary to effectively use economic production data for making funding trade-offs.

We believe that the concept of economic production rates is sound and that DOD can more effectively use this as a budgeting tool. Our report, cited above, recommended that the Secretary of Defense (1) specifically define what information the services are to report and that it includes defined unit cost data at alternative production rates and (2) establish formal, written criteria for periodically reviewing and selecting weapon systems to be included in the economic production rate reporting process. In commenting on our report, DOD stated that on March 31, 1986, it issued specific guidance on what the services are to report for selected major weapon systems. While many other factors must be considered, the Committee may wish to utilize the information in DOD weapon system reports to help it evaluate the trade-offs between authorizing new starts and insisting on more economic production rates for ongoing programs.

FINANCING SAVINGS AND THE INFLATION DIVIDEND

Chairman NUNN. Mr. Bowsher, you note in your statement that over the years the Defense Department got $55.8 billion more for inflation than was needed. You also note that some $17 billion has been used to offset congressional cuts.

Our staff disagrees with that. By our calculation, roughly a third of all reductions during the past 7 years have been financing adjustments, and since we have averaged $20 billion in cuts a year, that is well over the $17 billion you cite.

Have you done an audit of where the $55 billion has gone? Can you tell us how much is left? Can you tell us where the money went to?

Mr. BOWSHER. GAO has identified a total of $17.2 billion in congressional reductions in fiscal years 1982 through 1987 which were cited specifically as inflation adjustments. These amounts are shown in table 1.1 below:

TABLE 1.1.—INFLATION REDUCTIONS MADE TO DOD ACCOUNTS FISCAL YEAR 1982–FISCAL YEAR 1987

[In billions of dollars]

Year	Annual reduction cited	Amount of reduction
FY82	O&M, R&D—fuel	$0.50
FY83	O&M, R&D—fuel	.85
FY84	O&M, R&D—fuel	1.33
FY85	O&M, R&D—fuel	1.31
	Congressional transfers	.84
	FY 87 rescissions	.40
	Subtotal	2.55
FY86	O&M, R&D—fuel	.44
	Inflation fairness	1.36
	Inflation premium	1.70
	Updated projections	.12
	Congressional transfers	1.09
	FY 87 rescissions	1.83
	Subtotal	6.54
FY87	O&M, R&D—fuel	3.02

TABLE 1.1.—INFLATION REDUCTIONS MADE TO DOD ACCOUNTS FISCAL YEAR 1982–FISCAL YEAR 1987—Continued

[In billions of dollars]

Year	Annual reduction cited	Amount of reduction
	Other budget accounts	2.42
	Subtotal	5.44
	Total	17.21

As you have pointed out, Congress has reduced DOD budget accounts annually in amounts which exceed the amounts we identified as inflation reductions. In addition to the reductions specifically designated as inflation adjustments, other congressional actions have rescinded budget authority, transferred prior year funds and otherwise reduced DOD budget accounts. We have not tracked all such reductions but believe that the total amount for all categories of reductions made by the Congress to DOD budgets would be substantial.

Because of the difficulties in identifying inflation funds in an appropriation and tracing all reductions made to budget accounts which may be inflation adjustments—even though they are not designated as such in congressional language—we are unable to determine precisely how much of the $55.8 billion we identified remains. However, we believe that some amount is still remaining. In a September 5, 1986 letter to Senator Proxmire, we identified possible reductions in DOD funding levels related to our review of inflation amounts in the fiscal year 1987 budget request and prior year unobligated balances. We identified potential reductions of $5.1 billion by budget account for fiscal years 1985, 1986 and 1987. Of this amount, the total fiscal year 1987 inflation dividend still remaining is $1.25 billion.

We cannot fully determine where the inflation dividends went because of the difficulty in tracking an element which has not been clearly identified in an appropriation. However, we believe that some of the funds were reprogrammed and either have been or will be obligated for other programs. As discussed in our September 3, 1985 report, "Potential for Excess Funds in DOD," $26 billion in reprogramming actions occurred between 1980–1985. DOD is only required to report reprogramming actions over a stated threshold ($10 million for procurement accounts) or in selected other cases where funds are moved from one account to another. Reprogrammings below the threshold occur routinely. These reprogramming actions allow DOD to apply contract savings from one line item to another to meet changing program needs.

Because of the difficulties we have encountered in identifying and tracking inflation funds and congressional interest in increasing the visibility of inflation funds for better oversight, we are currently reviewing the feasibility of separately identifying inflation funds in appropriations. Among the various options which have been proposed are a general DOD-wide inflation fund, a budget activity level inflation fund, or a separate inflation fund for items with economic price adjustment contract clauses. There are advantages as well as disadvantages in each of these options, which we will consider during our review.

"SERIOUS GAPS" IN DEFENSE PROGRAM

Chairman NUNN. Mr. Bowsher, you state that "despite the improvements that have been made in our military capabilities over the past six years, serious gaps will continue to exist between military strategy, capabilities and resources."

How do you assess our ability to support our strategy of defending NATO conventionally, for example? Is there a serious gap in that regard?

Mr. BOWSHER. The NATO strategy of deterrence and defense in Western Europe relies on a triad of military capabilities. The first two legs of this triad—strategic and nonstrategic nuclear capabilities—are the stronger links. DOD funding priorities have more fully supported nuclear force program requirements, resulting in announced shortfalls or gaps in U.S. conventional force capability.

The Commander, U.S. European Command states that the U.S. cannot meet its commitment to have 10 divisions and their required support forces in Europe within 10 days after mobilization (M+10). He identifies major shortcomings contributing toward this gap as the lack of sufficient prepositioned stocks and strategic lift, as well as an inadequate support force structure. There are indications that the current five year defense plan includes resources directed toward reducing the prepositioned stocks and lift shortfall, but many believe the Army's combat support/combat service support shortfall has not yet been adequately addressed.

The European Commander raised the issue of inadequate support capability for the NATO theater during the 1985 and 1986 sessions of the Defense Resources Board. The Assistant Secretary of Defense (Reserve Affairs) recently pointed out that personnel and equipment problems in the Army Reserve and National Guard forces contribute significantly to the NATO capability shortfall. We are currently reviewing the M+10 essential force shortfall issue, and are independently addressing some of the questions raised in these prior studies.

Another capability gap which is frequently discussed with regard to the European theater is the shortage of preferred munitions. Our prior work on munitions requirements and capabilities is referenced in my response to an earlier question about sophisticated munitions.

QUESTIONS SUBMITTED BY SENATOR STROM THURMOND

SERVICE LIFE EXTENSION PROGRAM

Senator THURMOND. You reported that the Navy's estimate of $1.4 billion for the down payment for the accelerated carrier construction came primarily from reducing the scope of work for extending the life of existing aircraft carriers, and by eliminating the planned service life extension program for the LPD-4 class amphibious ship.

What will be the impact of capability, reliability, and readiness of the existing fleet, resulting from this reduction in support?

Mr. BOWSHER. The Navy is currently evaluating the cost reduction measures they will incorporate into their aircraft carrier service life extension program (SLEP) and the elimination of the LPD-4 SLEP. Until they define what alternatives are available and select one, the impact on fleet capability, reliability, and readiness cannot be fully assessed.

BURDENS ON DEFENSE BUDGET

Senator THURMOND. Mr. Bowsher, you stated that the major capital assets the administration has bought are very costly to maintain and will place a heavy burden on the defense budget as we enter the years of slower or no growth in the budget.

What do you see being done in the budget to meet this requirement, and do you feel the actions/projected funding is adequate?

Mr. BOWSHER. There is clearly a legitimate concern about whether the funding will be available in the future to operate and support the expensive and sophisticated weapons systems being purchased today. However, GAO has not performed the analysis that would be required to respond to your question. To adequately respond to your question about whether DOD's budget actions and projected funding is adequate to support the major capital assets would require the availability of budgetary planning data for future years, information that DOD has traditionally not shared with the legislative branch.

While we cannot answer your question specifically, information that has been made available to GAO indicates that DOD's procurement budget has been reduced by about 50 percent in fiscal year 1988 over what had been planned in the fiscal year 1984 FYDP. On the other hand, the accounts that provide operation and support funds were reduced by a much smaller percentage, or in the case of military personnel and stock funds, were actually increased slightly. This would seem to indicate that actions are being taken by DOD in its budgeting process to provide operational support for the major capital assets.

NAVY'S MINIMUM FORCE REQUIREMENT

Senator THURMOND. You stated that based on current projections the Navy will not have the mix of ships that the Navy's maritime strategy requires. That your analysis of their plans through fiscal year 1996 shows that the Navy will not achieve its "minimum force" requirement before the year 2000.

What is the requirements to obtain the mix needed for the Navy's maritime strategy?

Mr. **Bowsher**. According to the Navy, "the 600-ship Navy" represents the following specific mix of ships (see the fiscal year 1988 Secretary of Defense Annual Report to the Congress, page 168):

Ballistic Missile Submarines and Their Support Ships	20–40
Deployable Aircraft Carriers	15
Reactivated Battleships	4
Cruisers and Destroyers	137
Frigates	101
Nuclear-Powered Attack Submarines	100
Mine Countermeasures Ships	14
Amphibious Ships	75
Patrol Combatants	6
Combat Logistics Ships	65
Support Ships and Other Auxiliaries	60–65
Total Deployable Battle Force Ships	597–622

Classified Navy documents used in GAO's analyses further delineate the requirement within each category of ships by specific types and classes of ships at specific points in time.

The Navy says this is the minimum force necessary to carry out the maritime strategy. On June 24, 1985, before the Seapower and Strategic and Critical Materials Subcommittee, House Armed Services Committee, the Secretary of the Navy stated "* * * 600 is a floor. It is the absolute minimum that give us the capability to carry out a successful strategy." Not having the force structure described above will not necessarily preclude the Navy from executing the maritime strategy, but it does increase the levels of risk.

Senator **Thurmond**. What is the estimated cost to obtain this "minimum force?"

Mr. **Bowsher**. GAO's classified draft report titled "Status of the Navy's Fleet Expansion Efforts," provided to the Committee on February 19, 1987, contains a detailed description and analysis of the mix of ships the Navy plans to have and will likely have in fiscal years 1990, 1995, and 2000. This is then compared with the Navy's requirements. Projected shortfalls in all categories of ships (except strategic forces) are identified and estimated costs to eliminate the projected shortfalls are presented. The specific numbers and timeframes have been classified SECRET by the Navy.

Chairman **Nunn**. We thank you both for being here. It's been good having you. You've been a great help to us. We look forward to continuing work with you. And we hope, Mr. Bowsher, you will thank all of your excellent staff for the work they've done.

Mr. **Bowsher**. We certainly will, Mr. Chairman. And we appreciate very much working for this committee.

Chairman **Nunn**. Thank you.

[Whereupon, at 11:40 a.m., the committee adjourned.]

INDEX

A

Page

- ABM countermeasure programs and funding, U.S 300
- ABM Treaty:
  - Broadening interpretation 300
  - Interpretation 285, 300
- AC-130 improvements 199
- Acquisition improvements 217, 256
- Advanced tactical fighter (ATF) 124
- Air defense initiative, 5-year funding plan 301
- Air Force:
  - People 89
  - Programs and NASA 106
  - Spare parts 346
- Air Force and NASA 113
- Aircraft carriers 279, 341
  - Savings 96
- AirLand battle tenets 63, 64, 65, 66, 67
- ALCM, conventional 199
- Allied contributions 263
- Armor and antiarmor competition 98
- Arms control agreement 292
- Army:
  - Contribution to military strategy 139
  - Forces, missions of 139
  - Global missions 61
  - LHX program 315
  - Program balance 140
  - Resource trends 143
- ATACMS 123
- ATBM/SDI 307
- ATF and ATA fighters 110
- Authorization requests 203

B

- B-1 332
  - Program 339
- B-1B:
  - Programs 333
  - Status 302
  - Valuable strategic deterrent 127
- Baseline budget projections 9
- Baseline revenues and outlays 8
- Bases, funds to close 287
- Bow wave 345
- Budget:
  - Act, effects of the balanced 10
  - DOD, congressional reductions 208
  - DOD, fiscal years 1988-89 208
  - Operating and supporting costs 11
  - Outlook 9
  - Overview 274
  - President's 271
  - Process, strategy to 133

Budget—Continued
Page
  Production rates, savings from higher 14
  Request, Defense, administration 11
  Trends, 1978-87 7

C

Carriers:
  Construction 328
  Costs in the 1987 and 1988 plan 42
  Full funding for 353
  Program 103
Casualties, wartime 178
Chemical warfare 273
CINC:
  Demands on forces 154
  Goals, capability versus force goals 138
  Funding requirements, Navy support of 70, 136
  Integrated priority lists, support for 82, 137
  Needs, major, unmet 70
  Requirements, accomplishment of 82, 137
  Requirements, support of 68, 141
  Status 67
Civilian personnel 225
Combatants on the west coast, construction of 126
Competitiveness, improving 334
Concerns 144
Conflict, spectrum of 131
Contract audits 242
Contras 283
Conventional forces 227
  Modernization 272
Cruise missile:
  Advanced guidance program (CMAG) 112
  Conventional 198
  Development efforts, joint 307
  Improvements, operational 307

D

Defense:
  Acquisition plan 125
  Acquisition reports, major 125
  Budget, burdens on 358
  Outlays as a share of the gross national product 213
  Outlays as a share of total Federal outlays 214
  Program, fiscal years 1988-89 221
  Program, serious gaps 357
  Policies 260
  Resources, managing 324
Department of Defense (DOD):
  B/A and outlays, fiscal year 1988 248, 249
  Budget 219
    Fiscal years 1988-89, budget authority by title 215, 247
    Fiscal years 1988-89, manpower 216
  Budget authority 210
    Real growth 211
  Council on Integrity and Management Improvement (DCIMI) 241
  Management 237
  Planned program, comparison 209
  Reorganization 186
    Army 187
    Navy 187
    Marine Corps 188
    Air Force 188
  Weapons, dollar value 12
Dollar value, decline of 122
DYAD, movement toward 180

E

Page

- East Asia 268
- East-West balance 262
- End strength, Army 196
- Equipment procurement for Guard and Reserves, major 256

F

- FA/18 reductions 101
- Federal outlays:
  - By category 8
  - Total 215
- Financial management 240
- Fly before buy 332
- Flyaway costs 102
- Flying hours per crew, monthly 251
- Force:
  - Leveraging the 62
  - Modernization, conventional 189
    - Army 189
    - Navy 189
    - Marine Corps 190
    - Air Force 190
  - Projection 92

G

- GI bill, new 193
  - Army 194
  - Navy 194
  - Marine Corps 194
  - Air Force 195
- Global war commitments 305
- Ground-launched anti-ship missile 200
- Guard and Reserve Forces 196

H

- Helicopter program 105, 114
- Homeporting 112
  - Strategic 113

I

- Inflation reductions made to DOD accounts 356

L

- Land forces 228
- Launch vehicle, heavy lift 124
- LHX helicopters 329
  - Program, Army 315

M

- Macro-budget issues 55, 129
- Manning levels, maintaining 177
- Manning the force of the future 324
- Manpower:
  - Costs 349
  - Estimates 126
  - Recruiting 192
    - Army 192
    - Navy 192
    - Marine Corps 193
    - Air Force 193
- Manpower/womanpower projections 122
- Maritime 265

Maritime—Continued | Page
  Superiority ... 174
Material unaccounted ... 351
Mediterrean:
  Eastern, additional forces in ... 175
  Show of force ... 166
Military balance, trends in ... 264
Military forces, Nation's ... 342
Military construction programs ... 288
  Family housing ... 236
  Fiscal year 1988–89 ... 255
Military personnel ... 223, 271
  Active duty ... 223
  Overseas ... 185
  Recruiting and retention ... 223
  Reserve components ... 224
Military strategy ... 261
  Elements of ... 132
Missions, major military ... 96, 119
Modernization ... 225
  Conventional force ... 303
  Land forces ... 253
  Naval forces ... 253
  Tactical Air Forces ... 254
MX, rail mobile ... 289

N

NATO/Warsaw Pact ... 267
  Forces, production of selected weapons ... 212
National defense:
  Budget authority, projections allowing for real growth ... 53
  Topline ... 207
National security objectives ... 58, 132
National service ... 178
National Training Center, battalion rotations ... 252
Naval forces ... 230
Navy:
  600-ship ... 320
  Fleet expansion ... 329
  Manning the 600-ship ... 329
  Minimum force requirement ... 358
  Programs, affordability of ... 316
  Ships in the fleet in 1989 ... 321
Non-nuclear program ... 85
Nuclear deterrence ... 121

O

Operating and support costs ... 191
  Army ... 191
  Navy ... 191
  Marine Corps ... 191
  Air Force ... 191
Over-the-horizon (OTH)C^3I ... 199

P

Packard Commission recommendations and DOD reorganization, implementation of ... 245
Peacekeeper, rail deployment for ... 288
Personnel, quality ... 302
Posture hearing, CSAF ... 198
Power projection ... 269
President's budget ... 271
Procurement reform ... 238
  Spare parts ... 238
  Program stability ... 239

Procurement reform—Continued
Page
  Competition 239
Production programs, initial 37
Productivity 241

R

Readiness 86
  RC 197
Readiness and sustainability 297
  Reductions in 41
Readiness, sustainability and installations 93
Research and development 37, 289
Research and development, test and evaluation 235
  Programs, major, fiscal years 1988-89 255
Reserve component manpower growth 251
Resources 173

S

SALT II limits, decision to abandon 301
SBKKV requirements for mid-course 306
Sealift shortfall 126
Secretary of the Army, programing role 59
Service life extension plan (SLEP) 358
Shipyard base, condition of 126
Shipyard bidders 126
Shipbuilding program 99
SOPC floorspace and heavy lift vehicle 69
Soviet:
  ABM tests 300
  Offensive and defensive responses 301
  Strategy—NATO 197
Space and technology 94
Space surveillance and tracking system (SSTS) 110
Spare parts, Air Force 346
Special forces and low intensity conflict 273
Special operations forces 233, 270
Standoff weapon terminal seekers 206
Starts, new, too many 355
STOL aircraft 98
Strategic:
  Bomber programs 323
  Defense deployments 306
  Forces 90, 225, 265
  Modernization 120, 272
  Programs 184
  Systems 117
Strategic Defense Initiative (SDI) 182, 226, 277, 290
  Development and deployment 294
  Early deployment of 181
  Goals, reaching 278
  Impact on industrial base 348
  Program 280
  Program, early introduction of components 304
  Research 306
  Testing funds 299
Strategy and the military, linkages between 259
Stretchout programs 334
Sustainability 175, 274
  Marine Corps cost per day 142
  Stocks 354
USAF cost per day 142

T

Tactical:
  Air forces 232

Tactical—Continued Page
Forces 120
Warning and strategic warning 118
Theater forces 91
Tomahawk:
Improvements 123
Increased range 200
Trade deficit 285

V

Vandenberg and launch facilities 127
V-22 Osprey 195
Navy 195
Marine Corps 196
Air Force 196

W

Wartime casualties 178
Waste, fraud, and abuse 243
DOD efforts to curb 257
Weapons, close-in 198
Women in the military 250

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